Teachers’ Observations of 2-Year-Old Children’s Musical Vocalizations Elicited by Purposeful Silence Techniques

Kathryn Ward Reardon

University of South Carolina

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TEACHERS' OBSERVATIONS OF 2-YEAR-OLD CHILDREN’S MUSICAL VOCALIZATIONS ELICITED BY PURPOSEFUL SILENCE TECHNIQUES

by

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Finally, I am grateful to my loving husband, Chris, for his continual encouragement and moral support throughout my research efforts.
ABSTRACT

With the intent of improving early childhood music development understanding, the purpose of this research was to examine young children’s music vocalizations. The guiding research question was: When a music teacher implemented purposeful silences while performing a song and a rhythm chant, what techniques encouraged vocalizations made by 2-year-old children as observed by music teachers and classroom teachers? I implemented a qualitative design utilizing participant observation techniques to investigate the research purpose and question of this study. Four teachers served as a panel of experts to provide observational data. I video recorded myself teaching music activities from Music Play (Valerio, Reynolds, Taggart, Bolton, & Gordon, 1998) to a class of 12 two-year-old children. I used purposeful silences during the criterion song “Ring the Bells” and its corresponding tonal patterns and the criterion rhythm chant “Rolling” and its corresponding rhythm patterns (Valerio, et al., 1998). I adapted cultural domains and taxonomies regarding instructional silences and vocalizations from Young Children’s Responses to Purposeful Silences During Music Activities (Willing, 2009). Then, I developed a codebook based on the cultural domains and taxonomies. After creating cultural domains, taxonomies, and coding the data, two themes emerged: (a) modeling instructional silences and vocalizations may have encouraged vocalizations from children, and (b) using interactive, imaginative play and props helped teachers elicit children’s vocalizations. I created a componential analysis to compare three teachers’ observations of children’s vocalizations to instructional silences and found more
similarities than differences in the vocalizations that a music teacher and two classroom teachers noticed. Classroom teachers may assist music teachers in encouraging and interpreting music vocalizations from children. Early childhood music teachers should continue to build alliances with classroom teachers as they interpret and encourage young children’s vocalizations with regard to musical development. Together they should use interactive music making techniques, such as instructional silences, vocal modeling, imaginative play, and props to support children’s musical development.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACKNOWLEDGEMENTS</td>
<td>iii</td>
</tr>
<tr>
<td>ABSTRACT</td>
<td>iv</td>
</tr>
<tr>
<td>LIST OF TABLES</td>
<td>viii</td>
</tr>
<tr>
<td>LIST OF FIGURES</td>
<td>ix</td>
</tr>
<tr>
<td>CHAPTER 1 INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>PURPOSE</td>
<td>6</td>
</tr>
<tr>
<td>INITIAL GUIDING RESEARCH QUESTION</td>
<td>7</td>
</tr>
<tr>
<td>REVISED GUIDING RESEARCH QUESTION</td>
<td>7</td>
</tr>
<tr>
<td>CHAPTER 2 LITERATURE REVIEW</td>
<td>8</td>
</tr>
<tr>
<td>REESE (2011)</td>
<td>8</td>
</tr>
<tr>
<td>HORNBACH (2005)</td>
<td>15</td>
</tr>
<tr>
<td>McNAIR (2010)</td>
<td>21</td>
</tr>
<tr>
<td>WILLING (2009)</td>
<td>26</td>
</tr>
<tr>
<td>CHAPTER 3 METHOD</td>
<td>30</td>
</tr>
<tr>
<td>DESIGN</td>
<td>30</td>
</tr>
<tr>
<td>PARTICIPANTS</td>
<td>30</td>
</tr>
<tr>
<td>SETTING</td>
<td>33</td>
</tr>
<tr>
<td>CONCEPTUAL FRAMEWORK</td>
<td>34</td>
</tr>
<tr>
<td>DATA COLLECTION</td>
<td>36</td>
</tr>
<tr>
<td>ANALYSIS</td>
<td>41</td>
</tr>
</tbody>
</table>
CHAPTER 4 FINDINGS ........................................................................................................... 42
EMERGENT THEME ONE: MODELING INSTRUCTIONAL SILENCES
AND VOCALIZATIONS MAY HAVE ENCOURAGED RESPONSES FROM CHILDREN ...... 53
EMERGENT THEME TWO: USING INTERACTIVE, IMAGINATIVE PLAY
AND PROPS HELPED TEACHERS ELICIT CHILDREN’S VOCALIZATIONS ................. 58
COMPONENTIAL ANALYSIS: COMPARISON OF TEACHERS’ OBSERVATIONS OF
CHILDREN’S VOCALIZATIONS .................................................................................. 69
CHAPTER 5 DISCUSSION ..................................................................................................... 72
OVERVIEW OF THE STUDY ............................................................................................... 72
IMPLICATIONS FOR FUTURE RESEARCH ...................................................................... 76
IMPLICATIONS FOR EARLY CHILDHOOD MUSIC TEACHERS ...................................... 77
REFERENCES ..................................................................................................................... 80
APPENDIX A – CHILD AND PARENT INFORMED CONSENT LETTER AND FORM.......... 83
APPENDIX B – TEACHER INFORMED CONSENT LETTER AND FORM ......................... 85
APPENDIX C – CRITERION SONG AND CORRESPONDING TONAL PATTERNS .............. 87
APPENDIX D – CRITERION RHYTHM CHANT AND CORRESPONDING
RHYTHM PATTERNS ........................................................................................................... 88
APPENDIX E – TEACHER REFLECTION PROMPT ............................................................. 89
APPENDIX F – COMPONENTIAL ANALYSIS COMPARING TEACHERS’ OBSERVATIONS OF
2-YEAR-OLD CHILDREN’S MUSICAL VOCALIZATIONS ELICITED BY PURPOSEFUL
SILENCE TECHNIQUES ................................................................................................. 90
LIST OF TABLES

Table 1.1 Types and Stages of Preparatory Audiation .......................................................... 3
Table 4.1 Cultural Domain: Instructional Silences and Vocalizations ...................................... 43
Table 4.2 Cultural Domain: Degrees of Vocalizations ............................................................ 46
Table 4.3 Data Analysis Codebook .......................................................................................... 52
LIST OF FIGURES

Figure 3.1 Example of triple meter 4-macrobeat rhythm pattern appropriate for use with children in the shedding egocentricity stage of preparatory audiation................. 36

Figure 3.2 The final two measures of the criterion rhythm chant, “Rolling,” as performed by the researcher when using purposeful silence......................................................... 36

Figure 4.1 Taxonomy adapted from Young Children’s Responses to Purposeful Silences During Music Activities (Willing, 2009, pp. 16-19)......................................................... 49

Figure 4.2 Taxonomy adapted from Young Children’s Responses to Purposeful Silences During Music Activities (Willing, 2009, pp. 19-20)......................................................... 51
CHAPTER 1

INTRODUCTION

In the revised 1991 Child’s Bill of Rights, MENC (the National Association for Music Education) asserts that “all children at every level must have access to a balanced, comprehensive and sequential program of music instruction in school taught by teachers qualified in music” (MENC, 1991). As Overland and Reynolds (2010) reported, during the past 25 years, MENC proactively supported early childhood music education by facilitating research, publications, and practices in response to increasing professional interest in early childhood music education. Despite growing advocacy for early childhood music education in the past two decades and the variety of newly developed early childhood music programs available, “there is little literature to indicate that the majority of music curricula for young children are theoretically based or participate in any meaningful assessment” (Jordan-DeCarbo & Nelson, 2002, p. 233). Consequently, researchers and practitioners have the responsibility to investigate early childhood music education curricula in order to gain insight regarding young children’s music development and to identify which techniques are most effective for optimum music development.

that all humans are born with music aptitude, the potential to learn music. Music aptitude must be nurtured through informal music guidance from birth as humans develop their ability to audiate. Moreover, humans become musically fluent and literate by engaging in social music interactions as they are guided through the types and stages of preparatory audiation (Reynolds, Long, & Valerio, 2007). Through those interactions Gordon (2013) and Valerio et al. (1998) recommend that early childhood music teachers provide unstructured and structured informal music guidance as they move, sing, and chant in a variety of tonalities and meters for children. Music should also be presented without words so that children may focus on the music, for if teachers present songs and rhythm chants with text, young children may focus on the text rather than the music being presented.

During unstructured informal music guidance (Gordon, 2013; Valerio et al., 1998) teachers establish relationships with children, creating a welcoming environment to encourage music babble, approximation, imitation, and improvisation. Teachers never insist that children participate or perform, nor do teachers move children’s arms or legs for them to the beat. Instead, teachers present musical activities in a playful, enticing manner with positive affect and with freely flowing movement. As they do so, children are attracted to join in the music-making.

To provide structured music guidance during a music class based on recommendations by Gordon (2013) and Valerio et al. (1998), the teachers present a song or rhythm chant, and immediately afterward, sing tonal patterns or chant rhythm patterns derived from the tonality of the song or the meter of the rhythm chant. The teachers leave enough silence between the patterns so that another adult may copy the pattern or
improvise a different pattern. Also, during those silences music teachers may observe movement and vocal responses made by children, classify the responses into a music development stage, and structure music guidance to the children’s present, developmentally appropriate musical needs. Gordon (2013) and Valerio et al. (1998) recommend structuring music guidance based on the following types and stages of preparatory audiation.

Table 1.1

*Types and Stages of Preparatory Audiation* (Gordon, 2013).

<table>
<thead>
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<th>Types</th>
<th>Stages</th>
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<tr>
<td>ACCULTURATION: Birth to age 2-4: participates with little consciousness of the environment.</td>
<td>ABSORPTION: hears and aurally collects sounds of music in the environment.</td>
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<td>RANDOM RESPONSE: moves and babbles in response to, but without relation to, sounds of music in the environment.</td>
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<td>PURPOSEFUL RESPONSE: tries to relate movement and babble to sounds of music in the environment.</td>
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<td>IMITATION: Age 2-4 to 3-5: participates with conscious thought focused primarily on environment.</td>
<td>SHEDDING EGOCENTRICITY: recognizes movement and babble do not match sounds of music in the environment.</td>
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<td>BREAKING THE CODE: imitates with some precision sounds of music in the environment, specifically tonal patterns and rhythm patterns.</td>
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<tr>
<td>ASSIMILATION: Age 3-5 to 4-6: participates with conscious thought focused on self.</td>
<td>INTROSPECTION: recognizes lack of coordination between singing, chanting, breathing, and movement.</td>
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<td></td>
<td>COORDINATION: coordinates singing and chanting with breathing and movement.</td>
</tr>
</tbody>
</table>
According to Gordon’s Types and Stages of Preparatory Audiation, in the first stage, absorption, children “absorb” or listen to music, but they do not create music themselves. In every stage following absorption, children disclose their current levels of preparatory audiation through babbling, moving, singing, and chanting.

When implementing unstructured and structured music guidance as recommended by Gordon (2013) and investigating the initial stages of preparatory audiation, Hicks (1993) observed that children performed movement responses earlier than vocal responses and that both types of responses occurred most frequently during the researcher’s intentional pauses or silences during music and movement activities. Other researchers studied the use of silence in early childhood music classes (Hornbach, 2005, 2007; Valerio, Seaman, Yap, Santucci, & Tu, 2006; Willing, 2009). In those studies, music teachers used purposeful silences as an initiative to elicit children’s vocalizations. Valerio and Reynolds (2009) suggested that when adults purposefully insert silences into familiar musical games, they provide opportunities for children to engage in musical anticipation, expectation, prediction, and interaction (Gordon, 2012; Reynolds et al., 2007). Valerio and Reynolds (2009) recommended that adults provide “sensitively-crafted music feedback” by using purposeful silences during musical peekaboo and fill-in-the-blank games to focus children’s attention on the resting tone of a song (p. 14). For example, when adults intentionally leave silence where children expect to hear a resting tone, adults may elicit musical responses (vocalizations) from children, and then, by echoing the children’s musical responses, adults can scaffold children musically and engage children in interactive response chains (Hornbach, 2005).
Hornbach (2005) defined interactive response chains when qualitatively studying teacher initiatives, teacher silence, and children’s vocalizations in two early childhood music classes. In determining a research topic, Hornbach stated, “I wanted information about the stages of musical development of my students and what they knew, which can only be gained by finding teaching behaviors that elicit individual responses” (Hornbach, 2005, pp. 39-40). Hornbach found that when teachers leave silences during music activities, they elicit vocal responses from children that may lead to interactive response chains. During an interactive response chain, teachers and children present a series of musical initiatives and responses through movement and vocalizations. Interactive response chains are improvisatory, musical conversations that enable teachers to understand in which levels of preparatory audiation children are operating so that teachers may effectively scaffold musical development. In a teacher initiatives summary, Hornbach (2005) noted that:

- Silence was used as an instructional tool so that children were given time to think and respond.
- When silence was combined with musical anticipation, some children responded vocally to finish the song or resolve to tonic.
- When given the space to experiment, children would often respond vocally, perhaps because they believed that they were not being observed or to gain the teacher’s attention (p. 104).

Hornbach, Valerio, and Reynolds regarded student vocalizations as key to understanding a child’s level of musical development, and they identified silence as an effective tool for eliciting student vocalizations.
Willing (2009) identified five types of purposeful silences when observing 2-year-old children during informal music instruction. The first type was organizational silence, in which teachers organize materials or transition between activities. While that type of silence is inevitable and purposeful, Willing noted that type of silence does not elicit child vocalizations and therefore, should be minimized. Willing labeled the other four types of purposeful silences as instructional silences because these silences elicited student responses. Those four types of purposeful silences were: imitation intended, incompletion, cease to continue, and fade out. In turn, Willing identified four patterns of responses from children: imitative, fill-in-the-blank, chronological, and unintended. Willing’s research supports the use of intentional and premeditated use of instructional silences to guide children through the types and stages of preparatory audiation.


**Purpose**

With the intent of improving early childhood music development understanding, the purpose of this research was to examine young children’s music vocalizations.
**Initial Guiding Research Question**

When a music teacher implemented purposeful silences while performing a song and a rhythm chant, what was the nature of the vocalizations made by 2-year-old children as observed by music teachers and classroom teachers?

**Revised Guiding Research Question**

As in the practices of qualitative research, research questions may change as investigation develops. Following is the revised guiding research question.

When a music teacher implemented purposeful silences while performing a song and a rhythm chant, what techniques encouraged vocalizations made by 2-year-old children as observed by music teachers and classroom teachers?
CHAPTER 2

LITERATURE REVIEW

Adult Identification of Meaningful and Intentional Music Behaviors Demonstrated by Young Children

Reese (2011)

Similar to this study, Reese investigated adults’ perceptions and interpretations of young children’s musical behaviors. Adult participants comprised early childhood music teachers, child development teachers, and musicians. “With the intent of gathering information about how adults identify music behaviors demonstrated by young children,” the purpose of Reese’s research was “to investigate how adults identify music behaviors of young children in play-based early childhood settings” (p. 18). The following were Reese’s guiding research questions.

1. Are there statistically significant effects of training, parental status, or direction condition on the number of individual music acts identified by adults?

2. How does response latency vary based on training, parental status, and direction condition?

3. Of the music acts identified by the subjects, what types of music acts are identified as consensus acts (those identified by 75% of subjects or more within any three-second window)?

4. How do consensus acts differ with regard to type, frequency, and difficulty? (p. 18).
Method

Participants and setting. Reese used video recordings of children during music-play time in one classroom at a NAEYC-accredited child development center. Reese collected those video recordings as part of a prior research project in which Reese served as a student investigator. Researchers recorded the children from four different angles, and Reese chose to use footage from the camera with the least-obstructed view of the children. The class included six children from five- to fourteen-months old and two adult female child development teachers. During the music-play time, researchers provided musical interaction based on Music Play: Guide for Parents, Teachers and Caregivers (Valerio, Reynolds, Bolton, Taggart, & Gordon, 1998) and A Music Learning Theory for Newborn and Young Children (Gordon, 2003). Besides asking them to turn off recorded music during music-play time, the researchers did not give any specific instructions to the child development teachers.

Data collection, procedures, and analysis. After using iMovie to review four hours of video, Reese “extracted two, 30-minute music-play clips (60 minutes total) during which young children in the video demonstrated varied numbers of vowel- and syllable-like sounds (pitched and unpitched), continuous flow, continuous flow with pulsation, and steady beat” (p. 60). Reese labeled Individual Music Acts (IMAs) as any movement or vocalization that seemed musical. Then, from those videos, the researcher selected 16 music clips that had at least one IMA and varying numbers of IMAs per clip. Reese watched the videos multiple times, recording time stamps and descriptions for each behavior (aural and visual) by adults and by children. Then, Reese randomly selected four clips as practice clips and created two introductory information screens to precede
the practice clips, one each for Meaningful and Intentional Direction Condition. Reese presented audio recordings to go along with the introductory information screens. The first time that participants watched each clip, they were instructed to listen and watch, and the second time participants watched each clip, they were instructed to press the spacebar either when children behaved in a way that made musical sense or when children intentionally communicated musically. Twelve test clips proceeded after the four practice clips, with test clips playing twice consecutively and direction screens appearing before each viewing. Reese finalized two video orders (Module One and Module Two) to be used equally during the dissertation study. Participants wore noise-cancelling headphones while viewing the clips. Reese used Event Recorder software to record time stamps for each time a participant pressed the spacebar, recognizing a musical behavior. Then, the researcher used Microsoft Excel to calculate the total number of musical behaviors identified by each participant during each of the twelve test clips. Reese consulted three experienced early childhood music teachers to evaluate the content validity of the stimulus videos. Reese used the Meaningful Direction Condition introductory information with all three experts because Reese thought this information gave fewer restrictions than the Intentional Direction Conditioning introductory information. Then, Reese used the time stamps from the three experts to “confirm or deny presence of music behaviors demonstrated by young children in the stimulus video” (p. 66).

Reese completed a pilot study before the dissertation study and modified the spoken directions to the participants after completing the pilot study. Reese recruited 72 adult subjects to participate in her dissertation (24 child development teachers, 24 early
childhood music teachers, 24 musicians). Half of the subjects in each group were parents
to children 16 months of age or older, and the other half of the subjects in each group
were non-parents. Reese randomly contacted NAEYC-accredited child development
centers within a 20-mile radius to recruit child development teachers until recruiting 24
participants. The researcher recruited 24 early childhood music teachers by using a
database of music educators who had completed certification from a specific association
in early childhood music. Reese recruited musicians (non-educators) by posting fliers,
contacting them directly, and by having participants contact other eligible musicians.
Reese randomly assigned equal numbers of the members of each group to Meaningful or
Intentional Direction Condition and to Module One or Two. The researcher met each
participant at a location that was convenient for the participant (practice room, home or
work office), and each participant received a five-dollar Starbucks gift card for
contributing to the study.

Findings

The Child Development Teachers and the Musician group identified a similar
number of individual music acts (IMAs), and both groups identified significantly fewer
IMAs than the Early Childhood Music Teachers (ECMT) group. Reese noted that the
ECMT group members may have been especially influenced by the behaviors of the adult
teachers in the video footage because all the ECMT group members had received similar
special training in early childhood music teaching techniques. There was no significant
difference in the number of IMAs that parents and non-parents detected, and there was no
significant difference in the number of IMAs participants detected based on Direction
Condition (Meaningful or Intentional).
Because each one-minute music video clip contained multiple IMAs, often occurring in rapid succession, Reese could not precisely determine which individual data points corresponded to music behaviors demonstrated by infants. The researcher decided that without discrete data points, describing how response latency varies based on training, parental status, and direction condition was not appropriate.

Reese defined IMAs as consensus acts when 75% of group members (training group, parental status group, or Direction Condition group) pressed the spacebar within a three-second window. The ECMT group members identified significantly more consensus acts than CDT and Musician group members, and the consensus acts of the CDT and Musician groups were included within the consensus acts of the ECMT group. The ECMT group members may have agreed on significantly more of the IMAs because all the group members had received specialized training in early childhood music development and teaching techniques.

By comparing time stamps for consensus acts to qualitative descriptions of behaviors in the clips, Reese described consensus acts as containing beat-related movement, vocalization, or simultaneous beat-related movement and vocalization. Reese examined the relation between training group (ECMTs, CDTs, and Musicians) and consensus act type and found that all three training groups were equally likely to agree that beat-related movement was a musical behavior. ECMT group members were significantly more likely than CDT group members and Musician group members to agree that vocalization or simultaneous beat-related movement and vocalization were musical behaviors. Parents were significantly more likely than non-parents to agree that children exhibited musical behaviors, and Reese speculated that
since parents have more experiences with children, they may have more similar experiences with children, while non-parents have fewer experiences with children and those experiences may be dissimilar. Although parents agreed more often than non-parents, the consensus acts of non-parents were included in the consensus acts of parents. Participants in the parent group and non-parent group were equally likely to agree that beat-related movement, vocalization, or simultaneous beat-related movement and vocalization were musical behaviors. In contrast to previous studies, Reese found that participants in the Meaningful Direction Condition group and participants in the Intentional Direction Group were equally likely to agree that children exhibited musical behaviors. Interestingly, there were only two consensus acts on which both condition direction groups agreed; the Meaningful Direction group showed little agreement with the Intentional Direction group. Participants in the Meaningful Direction Condition group and participants in the Intentional Direction Group were equally likely to agree that beat-related movement, vocalization, or simultaneous beat-related movement and vocalization were musical behaviors.

Relevance to the Current Research

The setting and participants of the Reese’s research are similar to those of this study. In each study, the researcher used video footage of preschool age children in a natural, not laboratory, setting during music-play time with guidance based on *Music Play: Guide for Parents, Teachers and Caregivers* (Valerio, Reynolds, Bolton, Taggart, & Gordon, 1998). The children in each study were enrolled in an NAEYC-accredited child development center. The children in Reese’s study were younger (five- to fourteen-
months old) than those in this study (two-years-old). In the video footage, two female child development teachers, as well as music teachers, interacted with the children.

Like Reese, I chose to study the perspectives of adults with various levels of music training. Reese’s research included child development teachers, early childhood music teachers, and musicians. Similarly, I considered the perspectives of music education graduate students (who were early childhood music teachers in training) and of classroom teachers (child development teachers). I considered how both early childhood music teachers and classroom teachers recognize and describe young children’s musical behaviors.

For future research, Reese (2011) recommended:

“The role of adults in this study—as passive observers—was different from that of adults actively engaged with infants. Adults may identify music behaviors of young children differently when actively engaged with infants. Future researchers might employ qualitative and quantitative methods to examine how adults, when actively engaged with young children, identify music behaviors of young children” (p. 116).

In Reese’s study, the participants viewed footage of children unknown to them, while participants in this study took field notes and viewed video footage of children very well known to them in a class they taught. Reese took a broader approach, using a quantitative study to determine how many musical behaviors participants detected and agreed upon, while in this study, I used a much smaller group of participants and sought to deeply examine children’s music behaviors and their teachers’ detections of those musical behaviors through “thick, rich description” (Patton, 2002, pp. 437-440).
For analyzing the types of musical behaviors the children exhibited during each IMA in her study, Reese relied solely on the researcher’s own descriptions of the video footage. After designating a time stamp to the nearest second for “each behavior (musical or nonmusical) demonstrated by any child or adult in the video,” Reese recorded the description and musically transcribed the pitch of vocalizations (Reese, 2011, pp. 60-61). Reese requested that participants click a space bar when they perceived a musical behavior from a child but did not ask participants to describe those behaviors. In this study, I examined participants’ descriptions and interpretations of the musical behaviors they perceived in young children in addition to my own descriptions and interpretations.

**Ah-eee-ah-eee-yah-eee, Bum, and Pop Pop Pop: Teacher Initiatives, Teacher Silence, and Children’s Vocal Responses in Early Childhood Music Classes**

**Hornbach (2005)**

In this qualitative study, Hornbach collected field notes, interviewed teachers and parents, and analyzed video. The participants were teachers, parents, and children in two early childhood music play classes. Hornbach was interested in how wait time, or teacher silences, and other teacher initiatives affected children’s vocalizations. Hornbach asserted that eliciting responses from children is important so that teachers can individualize instruction.

“With the intent of improving early childhood education,” Hornbach’s (2005) purpose was “to develop an understanding of teacher initiatives, children’s responses, and the wait time (teacher silences) between teacher initiatives and children’s responses in early childhood music classes” (p. 21). Hornbach’s research questions were as follows:
1. What teacher initiatives (intentional or unintentional) precede children’s (ages birth to three-years-old) vocal responses?

2. What is the quality and length of silence between teacher initiatives and children’s vocal responses?

3. What are the characteristics of children’s vocal responses? (p. 22).

Method

Participants and setting. Hornbach used two early childhood music classes for her study. Hornbach’s advisor, Cynthia Taggart, taught one class of 10 children, ranging from 9-months-old to nearly 3-years-old, at the Community Music School at Michigan State University. Jennifer Bailey, a music development specialist, taught one class of four children, ranging from 2-months-old to 3-years-old, called Little Music Makers, which met in a church classroom. Each class met for 45 minutes each time, usually in rooms with minimal furnishings, which provided a “blank slate” (p. 46). Taggart and Bailey provided structured and unstructured, informal music guidance based on the research of Edwin Gordon and on Music Play: Guide for Parents, Teachers and Caregivers (Valerio, et al., 1998). Hornbach explained, “Both programs are predicated on the idea that children learn music like they learn a language” (p. 42). Teachers immersed the children in music, helping them to build music vocabularies, by performing songs and rhythm chants in a variety of tonalities and meters, both with and without words. Although the teachers modeled musical behaviors, they did not expect particular behaviors from children; the teachers allowed the children freedom to sit and absorb or to move, vocalize, and explore the musical environment. Both classes required parent attendance
with each child, and teachers instructed parents to be models but not to force children to move or vocalize in particular ways.

**Data collection, procedures, and analysis.** During the second semester of the school year, Hornbach observed and video recorded three consecutive classes in each setting for a total of six classes. To minimize disruption, Hornbach attended the classes from their inception and acted as both an observer and participant. Primary data sources were field notes, think-aloud interviews with teachers while viewing videotapes, videotape analysis, and formal and informal teacher/parent interviews. While observing and video-recording the classes, Hornbach wrote field notes. For significant vocalizations, Hornbach noted the time, behavior, and a narrative description. Within one week after each session, Hornbach conducted a think-aloud interview with the teacher, audio-recording and later, transcribing the interviews. During the think-aloud interviews, teachers watched the videos of the class sessions and verbalized their thoughts about the footage. Hornbach analyzed the video recordings of the class sessions for event sampling and description. The researcher conducted formal interviews with both teachers and informal interviews and conversations with teachers and parents. During the formal interviews, Hornbach used “questions designed to elicit the teacher’s thoughts regarding teacher initiatives, wait time (silence) before children’s responses, and children’s vocal responses as a springboard for discussion” (p. 50). The researcher audio-recorded and transcribed the formal interviews and conducted member checks.

Hornbach noted several limitations of the study: the sample size was too small for generalization, and as the main instrument of data collection, Hornbach’s own biases may have affected the collection, coding, and interpretation of the data. The sample included
only Caucasian, middle-class families, which were not representative of the diversity that was typical in the two settings. Having Taggart perform two roles in the study, both advisor and participant, could be interpreted as a limitation, but Hornbach justified this choice by noting that Taggart was the most experienced teacher available for Hornbach to study and that there were two additional, impartial committee members evaluating the study. Hornbach made efforts to triangulate the data, using the researcher’s own perspective and the perspectives of the teachers and the parents.

After much searching for the ideal software program, Hornbach coded the data by hand. Hornbach printed the data using different fonts and different colored paper for different sources. The researcher wrote the codes on large poster board pieces and then, glued, taped, or stapled the codes from various sources onto the boards, collating and analyzing the data for themes. Hornbach’s observations and codes were broadly divided into three categories: teacher initiatives, teacher silence (the wait time between a teacher initiative and a child’s response) and children’s responses.

**Findings**

Fifteen themes emerged as teacher initiatives that elicited children’s responses: “use of breath, body movement, use of props, teacher silence, musical anticipation, space, individual instruction, initiatives that contain touch, child joy, parent-child relationship, play, teacher improvisation, vocal timbre/vowel choice, teacher-child relationship, and the child as teacher” (Hornbach, 2005, p. 104).

Hornbach labeled the combination of teacher silence with teacher-teacher, teacher-child, and child-teacher exchanges the “interactive response chain,” a sort of “improvisatory musical conversation” (pp. 107-108, p. 112). Hornbach observed that in
these exchanges, the teacher’s response often serves as an initiative for a student, and then, the student’s response serves as an initiative for the teacher. Silence also served as an initiative. Hornbach did not measure wait time specifically but instead, approximated how each silence felt: long, medium, or short. Teachers were able to elicit vocal responses from children by leaving anticipation and imitation silences, in which they expected children to fill-in the blank or to imitate the teacher’s singing or chanting. In addition, organizational silences, when teachers were moving props or turning on recorded music, sometimes elicited responses from children, giving them time to explore.

The children’s responses helped the researcher speculate where each child was in his musical development, particularly which type and stage of preparatory audiation the child had entered. Hornbach coded the children’s responses as vocal, non-vocal, and none. Then, Hornbach sorted the vocal responses into non-musical, tonal, and rhythmic. Further, the researcher coded the tonal responses as tonic, dominant, or dominant-tonic. Overall, Hornbach noted more tonal than rhythmic responses, and the tonal responses ranged from vocal explorations to precise improvisations. The rhythmic responses tended to be two-beats in length, like the rhythm patterns the teachers modeled for the children. The teachers often interpreted children’s vocalizations as “musical” even when the vocalizations may have been more language-oriented.

As Hornbach coded data, three themes emerged: routine, child independence, and community. These emergent themes helped elicit vocal responses from children. Both Taggart and Bailey used routine to help children feel secure and to elicit vocal responses. They used a “Hello” and a “Goodbye” song to begin and end class, and they established musical rituals. The teachers and children would place beanbags on their heads, sing
dominant, and then, drop the beanbags to the floor and sing tonic. The children began to anticipate this ritual whenever the teachers brought out the beanbags. Independence was another important factor in eliciting vocal responses. The teachers encouraged children to be independent, and when the children had enough space and social skills, they would respond musically. In addition, the teachers and parents established a community in which the adults cared for all the children, not just their own, and supported each other. The children and adults interacted in a positive manner, which encouraged musical responses from the children.

**Relevance to the Current Research**

I used Hornbach’s study as a model. Hornbach (2005) recommended that “research should continue to look at silence in instruction in the early childhood music setting as well as the dynamic equation of the interactive response chain” (p. 139). Hornbach continued, “There is minimal research investigating the types of responses children are capable of in informal, structured guidance in music (versus free-play)” (Hornbach, 2005, p. 139). Like Hornbach, I acted as a participant observer in a music play class with informal, structured guidance. Specifically, I was interested in children’s responses to purposeful silences left in a song and a rhythm chant and teachers’ understanding of those responses. Many of the children in Hornbach’s study were the same age or near the same age as the children in this study (two years old). Both studies have teachers and young children as participants. Hornbach had the added perspective of parents; however, I chose not to include parents as participants. I was the lead music teacher in this study, while the researcher served as an assistant to the lead music teachers in Hornbach’s study. The music teachers in Hornbach’s study are considered to be
experts in music learning theory and its practical application, and in contrast, my assistant Cassie and I were newly trained in those practical applications at the time of this study. Hornbach identified a number of teacher initiatives that elicit children’s musical vocal responses. I chose to implement one of the teacher initiatives Hornbach identified, purposeful silences, while performing a song and a rhythm chant, and then, I examined young children’s music vocalizations as observed by music teachers and classroom teachers.

**Joint Music Attention Between Toddlers and a Music Teacher**

**McNair (2010)**

McNair used qualitative approaches to investigate joint music attention between toddlers and the researcher, an early childhood music teacher, while utilizing a curriculum based on Edwin Gordon’s music learning theory in music play sessions. McNair developed a codebook by synthesizing Gordon’s music learning theory, Vygotsky’s sociocultural learning theory, and Bruner’s joint attention theory and used these codes to analyze observational data from adult participant observers and music specialists. McNair found that physical proximity, toddler- and teacher-initiated reciprocal music-making, a social and music-making history, purposeful silences, objects, and play and playfulness influenced joint music attention.

“With intent of improving music acquisition understanding,” the purpose of McNair’s qualitative case study was “to investigate the nature of joint music attention between toddlers and myself, an early childhood music teacher.” (McNair, 2010, p. 11) McNair’s guiding research questions were
1. How do toddlers and I, a music teacher, exhibit signs of joint music attention when socially interacting using a music curriculum based on Gordon’s music learning theory?

2. What teacher-initiated music activities result in observations of joint music attention between toddlers and a music teacher?

3. What toddler-initiated music activities result in observations of joint music attention between toddlers and a music teacher?

4. What music acquisition skills are exhibited by toddlers during joint music attention?

5. What teacher-utilized materials or strategies result in observations of joint music attention?

6. What are the similarities and differences in observations of joint music attention among classroom teachers, music specialists, and researchers? (p. 110)

**Method**

**Participants and setting.** McNair served as a participant observer, and in addition, one music education graduate student/videographer and two classroom teachers of toddlers served as participant observers. Two music development specialists with expertise in early childhood music education served as observers. A class of nine toddlers, ranging from 13 months to 21 months of age, participated in the study.

For this study, McNair taught six music play sessions for the class of nine toddlers at the Children’s Center at the University of South Carolina. The Children’s Center provides full-day care for approximately 180 children ranging from 6 weeks to 5 years old in 13 classrooms grouped by age. The center is licensed by the state of South
McNair taught the music play sessions on an open floor space in the toddler classroom.

Throughout the school year, the toddlers participated in three 20-minute music play sessions per week. All of those music play sessions, and the six music play sessions of McNair’s study, were based on Gordon’s music learning theory for newborn and young children, utilizing both structured and unstructured informal guidance and musical activities from *Music Play* (Valerio, et al., 1998).

**Data collection, procedures, and analysis.** Over a period of three weeks, McNair taught two music play sessions per week to the toddlers and collected information from a variety of sources. McNair video recorded the sessions with two cameras. The music education graduate student focused one camera on McNair and the children who were interacting with McNair, and the other camera was stationary. After each session, McNair hand wrote reflections and observations, and the graduate student reviewed the videos and wrote reflections and observations. During each music play session, the two classroom teachers wrote field notes. In addition, the two classroom teachers and the two music development specialists privately and independently reviewed one selected video recording and answered open-ended questionnaires. McNair also conducted think-aloud interviews with each of the two classroom teachers and the two music development specialists as they viewed one selected music play session video with her. McNair viewed all of the music play session videos and wrote commentary.

McNair typed all handwritten observations, transcribed the video interviews, and performed member-checks. Then, McNair developed a codebook, organizing the data into cultural domains based on music learning theory, sociocultural learning theories, and
joint attention theories. Within each cultural domain, she created taxonomies based on identified and relevant behaviors. McNair used the taxonomies as the initial set of codes and tested those codes on a portion of the data. After revising the codes, McNair established three joint music attention cultural domains: “1) Shared music focus, 2) Shared music interaction, and 3) Shared music understanding” (McNair, 2010, p. 70).

Next, the researcher identified behaviors in the joint music attention cultural domains by constructing a joint music attention taxonomy and used the behaviors to create a codebook. Then, McNair applied the finalized codes to all the data and themes emerged.

In addition, McNair wrote vignettes of particularly informative instances of joint music attention in the study and completed componential analysis of the observations of the various adult research participants in order to compare their various perceptions of joint music attention.

**Findings**

McNair found six emergent themes as follows.

1. Physical proximity influenced joint music attention,
2. Toddlers and I each initiated reciprocal music-making,
3. A social and music-making history was necessary for joint music attention,
4. Purposeful silences encouraged joint music attention,
5. Objects were useful for achieving joint music attention, and
6. Play and playfulness encouraged joint music attention (p. 76).

By writing vignettes and reflections on the vignettes, McNair provided specific examples and further explanations of the emergent themes.
By conducting a componential analysis of the observations of the various adult research participants, McNair found that all three groups (classroom teachers, music specialists, and the researcher (McNair) and research assistant) had similarities and differences in their observations. The classroom teachers tended to focus on social interactions, while the music specialists focused on music skills. The researcher and research assistant noticed both social interactions and music skills. Identifying similarities and differences in the adult research participant viewpoints added depth to McNair’s study.

**Relevance to the Current Research**

The purpose of this study, to improve early childhood music development understanding, is very similar to the purpose of McNair’s study, to improve music acquisition understanding. McNair focused on joint music attention, while I focused on purposeful silences.

McNair performed a qualitative case study of one class of toddlers, while I performed a qualitative case study of one class of two-year-old children. We both utilized participant observation, field notes, observations, and reflections, think-aloud interviews, and video commentary and analyzed data qualitatively to find emergent themes.

One of McNair’s findings was that purposeful silence encouraged joint music attention. McNair was interested in the viewpoints of various adult research participants, including music education specialists and classroom teachers. I investigated the observations of various adult research participants as well, including music teachers and classroom teachers.
Young Children’s Responses to Purposeful Silences During Music Activities

Willing (2009)

Willing used quantitative and qualitative methods to investigate the types of purposeful silences used by a music teacher using a curriculum based on Music Learning Theory in a class of two- and three-year-old children. Willing used field notes and videotapes to look for patterns of silences, and Willing identified themes by analyzing the sounds before and after the silences. Then, the researcher identified four types of instructional silences and four types of encouraged responses.

The purpose of Willing’s research was “to investigate two-year-old children’s responses to purposeful silences during music play classes” (Willing, 2009, p. 10). Willing’s guiding research question was, “when engaged in a music learning theory based curriculum, what are the types of responses made by two-year-old children when the music teacher uses purposeful silences during music instruction?” (Willing, 2009, p. 10).

Method

Participants and setting. Willing conducted research in a class for children ages 2-3 years old at the Children’s Center at the University of South Carolina. There were ten children in the class, five boys and five girls. The music teacher participant, Anne McNair, had extensive training in curriculum based on Music Learning Theory and led music play sessions on the carpeted area at the center of the room.

Data collection, procedures, and analysis. Willing videotaped and observed 6 consecutive, once-weekly, 20-minute music play sessions. The music teacher (McNair) led the six sessions, based on Music Play (Valerio, et al., 1998) and left intentional,
premeditated, and improvised purposeful silences during each music play session. The
music teacher completed an open-ended questionnaire after the six-week videotaping
period. Immediately after videotaping each session, Willing wrote field notes. Later,
Willing viewed the videos and wrote further observations. Willing focused analysis on
the final three music play sessions to assure that the researcher’s presence and the video
camera’s presence did not affect the children. Willing identified two activities that
occurred in each of the three music play sessions: *Wake Up!* /[Snowflake]/Nih Nah Noh
(Valerio, et al., 1998) and *Twinkle, Twinkle, Little Star*. Then, Willing generated six
iMovie projects for each of the activities and transcribed the projects in Hypertranscribe.
Willing transcribed the following:

1) when the music teacher performed silences, 2) the number of silences
   performed by the music teacher during each music play activity, 3) the types of
   silences performed by the music teacher during each music play activity, 4) when
   the children performed responses, 5) the number of responses performed by
   children, 6) the types of responses performed by children, and 7) any additional
   observations unique to each activity (p. 15).

Afterward, Willing analyzed the transcriptions and field notes for patterns and themes.

**Findings**

Willing identified the themes of organizational silence and instructional silence.
Organizational silence occurred when the music teacher was organizing materials or
managing the classroom, and Willing recommended that organizational silence be
minimized. Instructional silence occurred when the music teacher was trying to elicit
responses from the children or allow them time for absorption. Willing further identified
four types of instructional silence: “1) imitation intended, 2) incompletion, 3) cease to continue, and 4) fade out” (Willing, 2009, p. 16). Using the four types of purposeful silences provided a means of informal assessment for the music teacher when children responded. Willing identified three types of responses: “1) imitative, 2) fill-in-the-blank, and 3) chronological” (Willing, 2009, p. 16). Willing also identified a fourth type of response, unexpected response, which resulted from the fade out silence.

Willing related the types of silences and responses to Gordon’s Types and Stages of Preparatory Audiation (Gordon, 2003). The researcher found that imitation intended silences with imitative responses may guide children to the breaking-the-code stage. The researcher found that both incompletion silence with fill-in-the-blank responses and cease-to-continue silences with chronological responses may guide children from the introspection stage to the coordination stage. The researcher found that fade-out silence with unintended responses may guide children through the coordination stage. Willing noted that children’s responses remained somewhat unpredictable, despite how certain types of silences tended to elicit certain types of responses, “The responses ranged from expected accurate, approximate, and improvised responses, to unexpected responses” (p. 19). The researcher also noted that students within the same classroom are likely at different stages of preparatory audition, and that they will perform with a variety of responses (including accurate, inaccurate, and at various times). Depending on a child’s stage of preparatory audition, the child may require more wait time before he can process and respond to a purposeful silence. Willing concluded that when music teachers use purposeful silences, they encourage musical communication, creativity, and improvisation.
Relevance to the Current Research

Like Willing, I conducted my research on a class of two-year-old children and investigated purposeful silences. While Willing was interested in identifying and describing types of purposeful silences, I was interested in music teachers’ and classroom teachers’ observations of purposeful silences and children’s vocalizations during those silences. I used the types of silences and responses that Willing identified to conduct my data analysis.
CHAPTER 3

METHOD

To investigate the research purpose and problems of this study, I implemented a qualitative design utilizing participant observation techniques (Spradley, 1980). Four teachers served as a panel of experts (Patton, 2002).

Participants

As an early childhood and elementary music specialist, I completed a Bachelor of Music degree with an emphasis in Music Education and Gordon Institute for Music Learning Mastership Certification in Early Childhood-Level I. I taught elementary music and early childhood music for one academic year, and I am completing graduate studies in early childhood and elementary music education at the master’s level. For this study I acted as a participant observer in a class of 12 two-year-old children, known as the Polar Bears, that I taught weekly during the 2009-2010 academic year at the Children’s Center at the University of South Carolina. The center serves a diverse group of 180 children between the ages of 6 weeks and 5 years. Prior to participating in the study, I achieved Internal Review Board approval, and parents of the child participants received the informed consent letter and completed and returned the informed consent form presented in Appendix A. To ensure confidentiality, the names of all children have been changed.

Cassie, a fellow music education graduate student, and Donna and Brittni, the classroom teachers, accompanied me when I taught the Polar Bears. Cassie, Donna, and Brittni also acted as participant observers. Prior to participating in the study, each
received the informed consent letter and completed and returned the informed consent form presented in Appendix B.

When teaching the class of 12 two-year-old children, I based music and movement activities on *Music Play* (Valerio et al., 1998). Throughout the 2009-2010 academic year, I taught the Polar Bears once per week for 20-minute music classes. During these music classes, I referred to a list of songs and rhythm chants in various meters and tonalities, with and without words, as my lesson plan. I kept certain songs and rhythm chants on this list throughout the year, while I used seasonal songs and rhythm chants for several weeks before rotating them off the list. I presented the criterion song “Ring the Bells” and its corresponding tonal patterns (Valerio, et al., 1998, pp. 50-51) and the criterion rhythm chant “Rolling” and its corresponding rhythm patterns (Valerio, et al., 1998, pp. 86-87) in almost every music class. In the fall, I co-taught with another music education graduate student, and for most of the spring, I taught by myself. I established relationships with the children through my weekly visits. I got to know each child’s personality and interests. Connecting with the children was essential in conducting this qualitative study.

In preparation for this study, Cassie began accompanying me to music classes in the month of April. Cassie acted as an interactive music maker with the children and me. Originally, I planned to use only Cassie and Donna in my study because Cassie had knowledge and training in early childhood music education and because Donna showed interest and enthusiasm during music class. Throughout the school year, whenever I came to do music class, Donna almost always joined the children and me and actively participated by moving and encouraging the children with her positive affect. Brittni
seemed to usually “catch up” on classroom organization and management tasks while I was there to teach music, so I did not think she would be interested in participating in the study. Then, for one of my recorded class sessions, Donna was absent, and Brittni showed much more engagement than she typically showed during music class. Using emergent sampling (Patton, 2002, p. 240), I asked Brittni if she would be willing to participate in the study, and she agreed.

**Cassie’s qualifications.** Cassie was my assistant music teacher. At the time of the study, she had a bachelor of music education degree and was certified to teach general and choral music K-12. During the second semester of the school year, while beginning graduate studies in early childhood and elementary music education at the master’s level, she completed an undergraduate level course in early childhood music for early childhood education majors and music education majors, and she observed, assisted, and participated in my music play classes at the Children’s Center. Concurrently, she observed, assisted, and participated in music play classes through the university’s Children’s Music Development Center, in which parents accompany their children to music play classes.

**Donna’s qualifications.** Donna was the assistant classroom teacher for the Polar Bears. She has paraprofessional certification, and she implemented The Program for Infant/Toddler Care (PITC) techniques in the classroom (WestEd, 2014a, 2014b). Donna had six years of experience teaching toddlers and 2-year-old children, and it was her second academic year of teaching at the Children’s Center at the University of South Carolina. She cared for infants, toddlers, and 2-year-old children in her church’s nursery for 19 years. Donna has no formal training in music beyond singing in her church’s
children’s choir as a child, but she is an avid music enthusiast. Donna stated, “I listen to music rather than watch TV at home. I like music with uplifting, encouraging words, as well as music with beautiful sounds and no words” (D. Hester, personal communication, April 12, 2010).

**Brittni’s qualifications.** Brittni was the lead teacher for the Polar Bears. She had earned a BA in early childhood education and was in her first year of teaching at the time of the study. Before teaching the Polar Bears, Brittni’s experience with 2-year-old children comprised babysitting while she was in high school and college. Like Donna, Brittni employed The Program for Infant/Toddler Care (PITC) techniques in the classroom (WestEd, 2014a, 2014b). When she was in elementary school, Brittni participated in weekly music classes, and in high school, she was involved in several musicals. In college, she also took one music history class. Brittni expressed that her musical experiences with teaching children were limited to “traditional songs we sang and days-of-the-week and months-of-the-year songs we sang” (B. Girard, personal communication, October 2, 2014).

**Setting**

We held music classes in the Polar Bears’ classroom, which was separated into four activity centers by rugs and shelves. Those activity centers were library/quiet area, art/table toys area, housekeeping area, and building/block area. Most music activities took place in the building/block area, on a central rug in the room. We used the toy trucks, dolls, animals, and soft building blocks located in the adjacent shelves as music activity props. The children freely came to the rug to listen or to participate in the music activities, but no adults forced them to do so. Usually, a few children remained in
other activity centers during the music classes, but the majority of the children participated in music activities.

**Conceptual Framework**

Because of the children’s ages (approximately two-years-old) and their rich exposure to informal unstructured and structured music guidance from music education and early childhood education majors at the Children’s Center, I suspected that some of the children were transitioning from the acculturation to the imitation type of preparatory audiation (Gordon, 2013). I considered the children’s probable types and stages of preparatory audition when choosing which purposeful silences would best scaffold the children’s audiation development and elicit vocal responses.

As a part of regular music activities throughout the academic year, I familiarized the Polar Bears with the song “Ring the Bells” and its corresponding tonal patterns (Valerio et al., 1998, pp. 50-51) as presented in Appendix C. The song, in D keyality, major tonality, and duple meter, does not have words. When performing “Ring the Bells” with purposeful silences, either I would not sing measures 7-8, an internal cadence, or not sing measures 15-16, the final two measures and final cadence of the song. I chose these purposeful silences because Gordon (2003) recommended that a descending perfect fifth from “so” to “do” in major tonality is one of the first tonal patterns to which young children in the imitation type of preparatory audition respond vocally:

It is important that children first be exposed to and respond to tonic function tonal patterns that include only two pitches, which are ascending and descending perfect fourths and fifths associated with “do” and “so” in major tonality and “mi” and “la” in harmonic minor tonality. Children typically respond first to the
ascending perfect fifth and/or to the descending perfect fifth, and then to the ascending perfect fourth and/or to the descending perfect fourth (p. 79).

During music instruction, I followed the criterion song with structured guidance tonal patterns as recommended by Gordon (2013) and Valerio et al. (1998). After singing each tonal pattern, I often left purposeful silence, allowing enough time that a child could vocalize and attempt to echo the tonal pattern. If no child attempted to vocalize during these purposeful silences, Cassie would sometimes imitate me, singing the tonal patterns. Cassie provided a model for the children by echoing me.

As a part of regular music activities throughout the academic year, I familiarized the Polar Bears with the rhythm chant “Rolling” and its corresponding rhythm patterns (Valerio et al., 1998, pp. 86-87) as presented in Appendix D. The rhythm chant is in triple meter and notated with 6/8 measure signature. When performing “Rolling” with purposeful silences, I did not chant the final measure (two macrobeats) of the rhythm chant. I chose this purposeful silence because the final four macrobeats of “Rolling” represent exactly the organization of a rhythm pattern that is appropriate for children in the shedding egocentricity stage of preparatory audiation; beats 1, 2, and 4 are whole macrobeat durations and beat 3 includes divisions of the macrobeat (Gordon, 2003, pp. 83-84). I usually performed beats 1 and 2, gradually raising the pitch of my chanting voice to build anticipation, and then, I left silence for beats 3 and 4 for children to respond and fill-in the blank.
Figure 3.1 Example of triple meter 4-macrobeat rhythm pattern appropriate for use with children in the shedding egocentricity stage of preparatory audiation (Gordon, 2003, pp. 83-85).

Figure 3.2 The final two measures of the criterion rhythm chant, “Rolling,” as performed by the researcher when using purposeful silence.

During music instruction, I followed the criterion rhythm chant with two-macrobeat structured guidance rhythm patterns as recommended by Gordon (2003, 2013) and Valerio et al. (1998). After chanting each rhythm pattern, I often left purposeful silence, allowing enough time that a child could vocalize and attempt to echo the rhythm pattern. If no child attempted to vocalize during these purposeful silences, Cassie would sometimes imitate me, chanting the rhythm patterns. Cassie provided a model for the children by echoing me.

Data Collection

I chose to use “Ring the Bells” and its corresponding tonal patterns as the criterion song/tonal patterns and “Rolling” and its corresponding rhythm patterns as the
criterion rhythm chant/rhythm patterns because I had noticed a high number of children’s vocalizations during these two selections throughout the first semester and the early part of the second semester. During May, twice-per-week for three weeks, I led the Polar Bears in 20-minute music classes, assisted by Cassie, Donna, and Brittni, in our naturalistic setting. As usual, I performed songs and chants in a variety of tonalities and meters from Music Play (Valerio et al., 1998), and I performed the criterion song/tonal patterns and the criterion rhythm chant/rhythm patterns with and without purposeful silences at least four times each per class.

Before I collected video recordings of the Polar Bears’ music classes, I discussed my intended teaching plan during the data collection period with Cassie. We aimed to perform “Ring the Bells” and “Rolling” each at least four separate times during every music class. Because two-year-old children have short attention spans and because the songs and chants from Music Play (Valerio, et al., 1998) are brief in duration, we transitioned from one music activity to another music activity many times during a 20-minute music class; my goal was to base music activities on “Ring the Bells” and its corresponding tonal patterns and on “Rolling” and its corresponding rhythm patterns four times each, interspersed with music activities based on other songs and rhythm chants. I explained which portions of “Ring the Bells” and “Rolling” I determined to be appropriate for leaving instructional silences. I told Cassie that if no children were vocally responsive after I left several instructional silences, she should model the vocalizations. From my experience teaching the children in the months prior to commencing data collection, I knew that the children would not always vocally respond
to instructional silences, and I suspected that modeling vocalizations for the children would help elicit vocalizations from them.

I video-recorded each music class using a Flip video camera with a tripod, and I focused the camera on the blue carpet where we sat for the music classes. During music class, Cassie took field notes and immediately afterward, she wrote written reflections. Donna also wrote reflections after music class. I viewed the video recording of each music class in its entirety, frequently pausing the video recording to write reflections. In my reflections, I wrote observations that were related to both the criterion song and criterion rhythm chant and to other songs and rhythm chants.

After completing my reflections, I used FlipShare software to edit a compilation of my performances of and the children’s responses to the criterion song and criterion rhythm chant for subsequent analysis. Using FlipShare, I created separate video files (video excerpts) of each interlude in which I performed either the criterion song or criterion rhythm chant. These video excerpts ranged from about 15 seconds to about three minutes in duration.

Next, I reviewed all the video excerpts for the criterion song/tonal patterns and for the criterion rhythm chant/rhythm patterns, and through intensity sampling, I noted which video excerpts were vocalization-rich video excerpts, containing the children’s most meaningful, numerous, or frequent vocalizations (Patton, 2002, p. 234). From each music class, there were video excerpts in which the children did not seem to respond vocally to the criterion song/tonal patterns and criterion rhythm chant/rhythm patterns and there were video excerpts in which the children performed meaningful, numerous, or frequent vocalizations. To maintain productivity and to focus on vocalizations performed by
children during purposeful silences performed by me, I transcribed only the vocalization-rich video excerpts. Hornbach (2005) used a similar approach in coding: “Children’s responses were initially labeled as vocal, non-vocal, or none; it quickly became apparent that coding the “none” was not productive” (p. 115). I began to transcribe those vocalization-rich video excerpts using HyperTRANSCRIBE 1.5, but after transcribing several videos, I switched to using QuickTime Player to watch the video excerpts and Microsoft Word to record my transcriptions. I transferred the transcriptions I created in HyperTRANSCRIBE 1.5 to the Microsoft Word document. I strived to be very thorough, describing the setting and the behaviors of the adults as well as the children through “thick, rich description” (Patton, 2002). I noted the behaviors of children who responded vocally and of children who did not seem to respond vocally. After completing my transcriptions of the video excerpts for the criterion song/tonal patterns, I repeated this intensity sampling and transcription process for the video excerpts of the criterion rhythm chant/rhythm patterns.

When the transcriptions of the video excerpts were complete, I conducted separate think-aloud interviews with Donna and with Brittni, respectively, while viewing selected vocalization-rich video excerpts. During think-aloud interviews, participants verbalize descriptions, explications and explanations of thoughts and thought processes (Ericsson & Simon, 1993). I used a MacBook to present the video excerpts during the think-aloud interviews, and I recorded each interview using a Flip video camera with a tripod. I used extreme case sampling to select video excerpts to show to Donna and Brittni during think-aloud interviews (Patton, 2002). I selected a total of six video excerpts to present to Donna and to Brittni: three vocalization-rich video excerpts of the criterion song/tonal
patterns and three vocalization-rich video excerpts of the criterion rhythm chant/rhythm patterns. I showed the same videos to Donna and to Brittni. For both the criterion song/tonal patterns and the criterion rhythm chant/rhythm patterns, I chose the video excerpts that were richest in vocalizations.

After completing the think-aloud interviews, I used QuickTime Player to watch the video recordings of the interviews and Microsoft Word to record my transcriptions for subsequent analysis. I conducted member checks (Creswell, 2003) to allow Donna and Brittni the opportunity to examine the accuracy of the transcribed think-aloud interviews. I emailed the Microsoft Word documents of the transcribed think-aloud interviews to Donna and to Brittni, respectively, and gave them access to the video recordings of the interviews through Google Docs. They each agreed to the accuracy of the transcriptions (D. Hester, personal communication, September 20, 2014; B. Girard, personal communication, October 2, 2014).

As recommended by Patton (2002), I sought to triangulate the sources by “comparing observations with interviews,” by “checking for the consistency of what people say about the same thing over time,” and by “comparing the perspectives of people from different points of view” (p. 559). The data for this research comprised the following sources:

- Cassie’s written reflections
- Donna’s written reflections
- The researcher’s written reflections
- Transcriptions of vocalization-rich video excerpts
- Transcribed think-aloud interview with Donna
• Transcribed think-aloud interview with Brittni

**Analysis**

I adapted two cultural domain tables, two taxonomies, and a codebook from Willing’s (2009) *Young Children’s Responses to Purposeful Silences During Music Activities*. Then, I coded all the participant teachers’ written reflections, the transcriptions of vocalization-rich video excerpts, and the transcriptions of the think-aloud interviews. I described two emergent themes and created a componential analysis.
CHAPTER 4

FINDINGS

I used Spradley’s (1980) system of cultural domains and taxonomic analysis to code the data. Because the purpose of this research was to examine children’s vocalizations in response to purposeful silences, I used Willing’s (2009) findings to determine the cultural domains, taxonomies, and codebook. Willing specifically described types of purposeful silences and corresponding responses and the degrees of children’s responses. For the purpose of this study I renamed Willing’s term, responses to the terms vocalizations.¹ By coding the written reflections, the transcribed music class video excerpts, and the transcribed think-aloud interviews, I sought to describe and classify children’s vocalizations.

First, I created two cultural domain tables. Spradley (1980) explained, “A cultural domain…. is a category of cultural meaning that includes other smaller categories” (p. 98). Cultural domains are comprised of cover terms, semantic relationships, and included terms (Spradley, 1980). For Table 4.1, I used “Instructional Silences” and “Vocalizations to Instructional Silences” as cover terms. The included terms consisted of four instructional silences and four vocalizations. I used the semantic relationship “are types of” to relate the cover terms to the included terms. For Table 4.2, I used “Vocalizations,” “Expected Vocalizations,” and “Unexpected Vocalizations” as cover terms, six types of vocal responses as the included terms, and “are types of” for the semantic relationships.

¹ All quotations of Willing’s (2009) study will retain the term responses.
Willing identified two types of purposeful silences: organizational silence and instructional silence. Since organizational silence, the transition times when teachers deal with student behaviors or changing activities, does not “solicit desired student responses,” and since this research focused on children’s vocalizations, I chose to base the cultural domain in Table 4.1 only on the types of instructional silence, silences teachers use to “elicit responses from children during instruction or to allow time for absorption of the material presented,” and on the vocalizations (responses) to instructional silences (Willing, 2009, p. 16).

Table 4.1

*Cultural Domain: Instructional Silences and Vocalizations*

<table>
<thead>
<tr>
<th>Included Terms</th>
<th>Semantic Relationship</th>
<th>Cultural Domains</th>
</tr>
</thead>
<tbody>
<tr>
<td>Imitation Intended Silence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incompletion Silence</td>
<td>Are types of</td>
<td>Instructional Silences</td>
</tr>
<tr>
<td>Cease-to-Continue Silence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fade-Out Silence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Imitative Vocalization</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fill-in-the-Blank Vocalization</td>
<td>Are types of</td>
<td>Vocalizations to</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Instructional Silences</td>
</tr>
<tr>
<td>Chronological Vocalization</td>
<td></td>
<td></td>
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<tr>
<td>Continued Vocalization</td>
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</tbody>
</table>

*Note: Adapted from Young Children’s Responses to Purposeful Silences During Music Activities* (Willing, 2009, pp. 16-19).
When constructing this domain, I adapted the label of one type of response from Willing’s research. Although Willing (2009) stated “fade-out silences elicited unexpected responses,” Willing did not list unexpected responses with the other responses to instructional silences (pp. 16-18). Willing described fade-out silences as silences that occurred when the teacher and children performed a musical activity together, and the teacher gradually faded-out her voice until the children performed the activity independently. Willing explained, “Unlike the incompletion and cease-to-continue silences, fade-out silences did not seem to elicit intended responses from the children” (p. 18). Willing further explained, “With fade-out silences, children were unexpectedly guided onto responding alone and were not given the time to decide whether or not they wanted to respond to the teacher’s silence” (pp. 18-19). I chose to label the children’s responses to fade-out silences as continued vocalizations because the children continued to sing or chant after the adult stopped singing or chanting. Although their vocalizations were not necessarily intentional, these continued vocalizations often consisted of vocalizations that the adults may have expected to hear, so labeling the vocalizations as unexpected did not seem appropriate.

I adapted the cultural domain in Table 4.2 from Willing’s (2009) *Young Children’s Responses to Purposeful Silences During Music Activities* (pp. 19-20). The degrees of children’s vocalizations are crucial to this study because the degrees of vocalizations allow “the teacher to assess the student’s preparatory audition level,” which was an important element of describing the children’s vocalizations (Willing, 2009, p. 19). By interpreting a child’s vocalizations, a music teacher can tailor instruction to support the student’s progression through the types and stages of preparatory audition.
Willing (2009) stated, “the responses ranged from expected accurate, approximate, and improvised responses, to unexpected responses” (p. 19). After much consideration, I listed the degrees of vocalizations as expected or unexpected vocalizations. Expected vocalizations were accurate or approximate, and unexpected vocalizations were related or unrelated. When a teacher leaves a purposeful silence, the teacher may expect a very specific vocalization, for the child to accurately or approximately vocalize, either echoing a tonal pattern or rhythm pattern or continuing a song or a rhythm chant. As Willing stated, frequently, children may respond unexpectedly during purposeful silences. I initially considered that all unexpected vocalizations fit into one category, but as I examined the data, I noticed that unexpected vocalizations had varying degrees of relation to the current musical activities. When responding unexpectedly, a child may improvise, singing pitches related to the current tonality or chanting rhythms related to the current meter. A child may respond in a way that seems unrelated to the current musical activity and unrelated to the current tonality and/or meter; for example, the child may chant a lyric from a different familiar rhythm chant. When using instructional silences, a teacher may expect certain vocalizations but may also learn about a child’s progress in preparatory audiation through unexpected vocalizations.
Table 4.2

*Cultural Domain: Degrees of Children's Vocalizations*

<table>
<thead>
<tr>
<th>Included Terms</th>
<th>Semantic Relationship</th>
<th>Cultural Domains</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expected Vocalizations</td>
<td>Are types of</td>
<td>Vocalizations</td>
</tr>
<tr>
<td>Unexpected Vocalizations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accurate Vocalizations</td>
<td>Are types of</td>
<td>Expected Vocalizations</td>
</tr>
<tr>
<td>Approximate Vocalizations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Related Vocalizations</td>
<td>Are types of</td>
<td>Unexpected Vocalizations</td>
</tr>
<tr>
<td>Unrelated Vocalization</td>
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<td></td>
</tr>
</tbody>
</table>

Note: Adapted from *Young Children’s Responses to Purposeful Silences During Music Activities* (Willing, 2009, pp. 19-20).

After creating the two cultural domain tables (Table 4.1 and Table 4.2), I constructed two taxonomies (Figure 4.1 and Figure 4.2). Spradley (1980) explained that cultural domains and taxonomies similarly include sets of categories based on semantic relationships, but they differ in that “a taxonomy shows more of the relationships among things inside the cultural domain” (p. 112). Within the two taxonomies, I illustrated the relationships between the various silences and vocalizations. Afterward, I used the taxonomies to create my codes.

The taxonomy in Figure 4.1 is adapted from the cultural domains from Table 4.1, adapted from *Young Children’s Responses to Purposeful Silences During Music Activities*.
Activities (Willing, 2009, pp. 16-19). Willing related each type of instructional silence to a response/vocalization, and I presented those relationships in this taxonomy by describing adult behaviors and corresponding child behaviors. An adult may leave an imitation intended silence following a short tonal pattern or rhythm pattern, usually familiar to children, “to elicit purposeful, imitative responses from the children” (Willing, 2009, p. 17). These tonal patterns and rhythm patterns may be an included portion of a song or rhythm chant, or they may be separate from a song or rhythm chant, as in tonal and rhythm pattern guidance prescribed in Music Play (Valerio, et al., 1998). The adult uses silence to pose the question, “Can you sing (or chant) like me?” By performing an imitative vocalization, the child may “answer” the adult’s “question.” Incompletion silence occurs when an adult performs only a portion of a phrase of a familiar song or rhythm chant, posing the question, “Do you remember what completes this phrase?” to the child. The child performs a fill-in-the-blank vocalization when the child attempts to complete the phrase. With cease-to-continue silence, an adult completes a phrase of a familiar song or rhythm chant, but pauses before continuing on to the next phrase. An adult uses cease-to-continue silence to pose another question to the child, “Do you remember what phrase usually comes after the one I just performed?” When a child “answers” this “question,” the corresponding vocalization is a chronological vocalization, in which the child attempts to perform the next phrase that happens chronologically in a song or rhythm chant.

The three aforementioned pairs of instructional silences and corresponding vocalizations differ from the final pair in two ways. Unlike with imitation intended, incompletion, and cease-to-continue silences, when an adult performs a fade-out silence,
there is not actually silence in the classroom; in this instance, silence refers to the behavior of the adult, but not to behaviors of the children. A fade-out silence occurs when an adult and a child are singing or chanting a familiar song or rhythm chant together, and then, the adult gradually fades-out her voice until the child is singing or chanting independently. The child’s vocalization is a continued vocalization because the child continues performing without the vocalizations of the adult. With imitative, fill-in-the-blank, and chronological vocalizations, an adult gives a child the time and space to choose to respond. When performing a fade-out silence, an adult transitions from actively singing or chanting with a child, supporting the child’s performance, to listening to a child’s independent singing or chanting, to determine the child’s current progress in preparatory audition. The child does not necessarily choose to respond but is tricked into responding by the adult. With fade-out silence, an adult poses the question, “Can you sing or chant this familiar music activity without my help?” and the child “answers” by continuing the song or rhythm chant, performing a continued vocalization.
<table>
<thead>
<tr>
<th>Cultural Domain:</th>
<th>Included Terms:</th>
<th>Adult Behaviors:</th>
<th>Child Behaviors:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Imitation</td>
<td>Leaves silence</td>
<td>Imitates the musical</td>
</tr>
<tr>
<td></td>
<td>Intended Silence</td>
<td>after musical</td>
<td>sounds of an adult</td>
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<td></td>
<td>with Imitative</td>
<td>sounds, often a</td>
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<tr>
<td></td>
<td>Vocalization</td>
<td>tonal pattern or</td>
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<td></td>
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<td>rhythm pattern,</td>
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<td></td>
<td></td>
<td>usually with</td>
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<tr>
<td></td>
<td></td>
<td>familiar</td>
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<td>music and</td>
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<tr>
<td></td>
<td></td>
<td>movement</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Incompletion</td>
<td>Leaves silence</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Silence with</td>
<td>in the middle</td>
<td></td>
</tr>
<tr>
<td>Instructional</td>
<td>Fill-in-the-Blank</td>
<td>or end of a</td>
<td></td>
</tr>
<tr>
<td>Silences and</td>
<td>Vocalization</td>
<td>phrase,</td>
<td></td>
</tr>
<tr>
<td>Vocalizations</td>
<td></td>
<td>omitting a lyric,</td>
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<td></td>
<td></td>
<td>resting tone, or</td>
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<td>several notes of</td>
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<td></td>
<td></td>
<td>a melodic or</td>
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<td></td>
<td></td>
<td>rhythmic</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>phrase</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cease-to-Continue</td>
<td>Completes a</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Silence with</td>
<td>musical</td>
<td></td>
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<tr>
<td></td>
<td>Chronological</td>
<td>phrase but</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Vocalization</td>
<td>pauses, leaving</td>
<td></td>
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<td></td>
<td></td>
<td>silence,</td>
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<td>instead of</td>
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<td>continuing a</td>
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<td></td>
<td></td>
<td>song or rhythm</td>
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<td></td>
<td>chant by</td>
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<td></td>
<td></td>
<td>performing the</td>
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<td></td>
<td></td>
<td>next event or</td>
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<tr>
<td></td>
<td></td>
<td>phrase, which</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>was omitted by</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>an adult</td>
<td></td>
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<tr>
<td></td>
<td>Fade-Out Silence</td>
<td>Switches from</td>
<td></td>
</tr>
<tr>
<td></td>
<td>with Continued</td>
<td>singing or</td>
<td></td>
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<tr>
<td></td>
<td>Vocalization</td>
<td>chanting with</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>children to</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>listening to</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>children perform</td>
<td></td>
</tr>
</tbody>
</table>

Figure 4.1 Taxonomy adapted from *Young Children’s Responses to Purposeful Silences During Music Activities* (Willing, 2009, pp. 16-19).

The taxonomy in Figure 4.2 is adapted from the cultural domains from Table 4.2. In this taxonomy, I presented three levels of degrees of vocalizations, with definitions of child behaviors for each of the final four vocalizations. I categorized vocalizations as expected vocalizations and unexpected vocalizations. A child preforms an expected...
vocalization when her singing or chanting accurately or approximately matches what adults likely expect to hear after a musical initiative, especially an instructional silence. When a child performs an accurate expected vocalization, she sings or chants with precision. When a child performs an approximate expected vocalization, she sings or chants with some precision but not accurately, in such a way that adults may infer the child’s intended vocalization. Children use expected vocalizations to directly “answer” any musical “questions” that adults pose with instructional silences. A child performs a related unexpected vocalization when her singing or chanting is surprising and unpredictable to adults yet directly related to the current music activity, especially the current tonality and/or meter. A child performs an unrelated unexpected vocalization if the child’s singing or chanting does not seem to be directly related to the current music activity, especially the current tonality and/or meter. Unrelated unexpected vocalizations may be unrelated to the current music activity, but may be related to other familiar songs or rhythm chants. Because children may spend several years in the acculturation stage of preparatory audition, absorbing musical sounds, sometimes children’s vocalizations that seem unrelated are delayed vocal responses to earlier musical activities and musical initiatives, perhaps even earlier instructional silences. A child may also use unrelated unexpected vocalizations to indicate to an adult that she wants to transition to a different, familiar song or rhythm chant, or that the child wishes for the adult to improvise new, different music. The child behaviors, or vocalizations, described in Figure 4.2 are essential to classifying the degree of precision and relevancy of children’s vocalizations.
Cultural Domain: Included Terms: Child Behaviors:

Expected Vocalization

Accurate Expected Vocalization
Sings or chants with precision and accuracy; adults may expect and easily recognize the vocalization

Approximate Expected Vocalization
Sings or chants with some precision; adults may infer the child’s intended vocalization

Vocalizations

Related Unexpected Vocalization
Improvises; sings or chants in an unpredictable manner that is relevant to the current music activity

Unexpected Vocalization
Unrelated Unexpected Vocalization
Exhibits creativity or improvisation; singing or chanting seems unrelated to the current music activity

Figure 4.2 Taxonomy adapted from *Young Children’s Responses to Purposeful Silences During Music Activities* (Willing, 2009, pp. 19-20).

After constructing the taxonomies in Figure 4.1 and Figure 4.2, I used the information about adult behaviors and child behaviors to create a codebook for analyzing the data. I divided the codes into silences and vocalizations and defined each code based on the information in the taxonomies. I used analytic induction because I began by “applying a theoretical framework developed by someone else,” that is, Willing’s (2009) framework related to instructional silences with corresponding vocalizations and degrees of vocalizations (Patton, 2002, p. 454). I presented my data analysis codebook in Table 4.3.
Table 4.3

*Data Analysis Codebook*

<table>
<thead>
<tr>
<th>Exhibited Behavior</th>
<th>Code:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Silences</strong></td>
<td></td>
</tr>
<tr>
<td>Leaves silence after a musical sound, usually with familiar music and movement activities</td>
<td>IIS</td>
</tr>
<tr>
<td>Leaves silence in the middle or end of a musical phrase, omitting a word, resting tone, or several notes of a melodic or rhythmic phrase</td>
<td>ICS</td>
</tr>
<tr>
<td>Completes a musical phrase but pauses, leaving silence, instead of continuing the song or rhythm chant</td>
<td>CCS</td>
</tr>
<tr>
<td>Switches from singing or chanting with children to listening to children perform</td>
<td>FOS</td>
</tr>
<tr>
<td><strong>Vocalizations</strong></td>
<td></td>
</tr>
<tr>
<td>Imitates the musical sounds of an adult or another child</td>
<td>IMV</td>
</tr>
<tr>
<td>Completes a portion of a phrase of a song or rhythm chant omitted by an adult</td>
<td>FBV</td>
</tr>
<tr>
<td>Continues a song or rhythm chant by performing the next event or phrase, which was omitted by an adult</td>
<td>CHV</td>
</tr>
<tr>
<td>Continues singing or rhythm chanting without the voice of an adult</td>
<td>CTDV</td>
</tr>
<tr>
<td>Sings or chants with precision or accuracy; adults may expect and recognize the vocalization</td>
<td>ACV</td>
</tr>
<tr>
<td>Sings or chants with some precision; adults may infer the child’s intended vocalization</td>
<td>APV</td>
</tr>
<tr>
<td>Improvises; sings or chants in a manner that is related to the current music activity</td>
<td>RUXV</td>
</tr>
<tr>
<td>Exhibits creativity or improvisation; singing or chanting seems unrelated to the current music activity</td>
<td>UUXV</td>
</tr>
</tbody>
</table>

Note: The data analysis codebook was derived from two taxonomies, Figures 4.1 and 4.2.
I chose to code the data by hand, without computer software. I printed the data from each source on different colored paper. Then, I read and re-read the data, marking codes in the margins. As I noted previously, I adjusted the wording and distinctions of some of the initial codes derived from Willing’s (2009) research. In the cultural domain and taxonomy for instructional silences and vocalizations (Table 4.1 and Figure 4.1), I paired *fade-out silences* with *continued vocalizations* instead of *unexpected vocalizations* because the word “continued” described the child’s behavior more clearly. I did use the term “unexpected vocalizations” in the cultural domain and taxonomy for degrees of vocalizations (Table 4.2 and Figure 4.2), and I identified two subcategories of unexpected vocalizations: *related unexpected vocalizations* and *unrelated unexpected vocalizations*. After resolving the final codebook, I analyzed all the data with the codes presented in Table 4.3. After coding the data, two themes regarding children’s vocalizations emerged.

**Emergent Theme One: Modeling Instructional Silences and Vocalizations May Have Encouraged Vocalizations from Children**

One quality that distinguishes the music classes in this study from other music classes for young children is that there were two trained music teachers present. Because of time and budget constraints, having two trained music teachers available during a music class may seem infeasible or impractical, but modeling musical interactions is an important benefit to having two trained music teachers in a music class. Together, through musical interactions, Cassie and I were able to precisely model many musical behaviors for the children, including instructional silences and vocalizations.

In the weeks preceding the six videotaped music classes, Cassie accompanied me to the Polar Bears’ music classes, and while providing musical guidance for the children,
we developed a co-teaching rapport. We planned to lead the music classes freely, transitioning from songs to rhythm chants to improvisations without a strict order. I usually initiated songs or rhythm chants, and then, Cassie joined me in singing or chanting. At times, I went silent and allowed Cassie to sing or chant alone.

As prescribed in *Music Play*, I followed performances of “Ring the Bells” with tonal pattern guidance and performances of “Rolling” with rhythm pattern guidance (Valerio, et al., 1998). I used both acculturation and imitation tonal patterns and rhythm patterns because I suspected that some of the children were in the acculturation type of preparatory audiation and some of the children were in the imitation type of preparatory audiation. When I performed tonal or rhythm patterns, leaving an imitation intended silence, if no child echoed me, Cassie would sometimes echo, performing an imitative vocalization. When I performed an incompletion silence or cease-to-continue silence, Cassie would sometimes perform a fill-in-the-blank vocalization or chronological vocalization. With our turn taking, we modeled instructional silences and vocalizations for the children. There were also several instances in which Cassie and I inadvertently demonstrated fade-out silence with continued vocalization. We began by singing or chanting together, and then, one of us “faded-out” her voice while the other continued singing or chanting.

While coding the data, I frequently noted instructional silences and vocalizations in which I performed an instructional silence and Cassie performed a vocalization. In addition to coding the type of instructional silence and vocalization, I wrote *modeling* in the margins of the video excerpt transcriptions. Furthermore, I noted several instances of modeling in which I performed an incompletion silence, and after a pause with no
vocalizations from children, I performed a fill-in-the-blank vocalization. Immediately following some these instances of modeling, I performed instructional silences and children performed vocalizations. Perhaps modeling instructional silences and vocalizations encourages children to respond.

During one music class, while we sang “Ring the Bells,” Cassie and I modeled a fade-out silence and continued vocalization:

As I sang “Ring the Bells,” I held a scarf in my hands as I moved my arms in curvy pathways. Cassie joined me in singing, and I picked up another scarf. This time, I stopped singing after m. 14, attempting an incompletion silence. Cassie continued singing, slowing the tempo through the end of the song. (“Ring the Bells” video excerpt transcription, May 14, 2010)

I faded-out my voice while Cassie completed the entire song. Later in the same video excerpt, Cassie and I again modeled a fade-out silence with a continued vocalization, and soon after, Lucia sang a continued vocalization:

I held a pink scarf and rocked side to side, with Lucia in my lap. Cassie joined me in singing. I stopped singing after m. 6, but Cassie continued, singing mm. 7 and 8. Then, Cassie and I continued singing “Ring the Bells” from m. 9. While Cassie and I were singing, Lucia held several pink scarves and moved her mouth as she listened. Lucia was attempting to imitate the music teachers’ arm motions with scarves, and she opened and closed her mouth similarly to the music teachers. Cassie and I interpreted her mouth movement as her attempting to sing along, and as we heard some sound from her, we performed a fade-out silence together after m. 12. I continued my rocking motion after I stopped singing. I interpreted this
silence as a fade-out because Lucia responded immediately, she did not really choose. (“Ring the Bells” video excerpt transcription, May 14, 2010)

Perhaps hearing Cassie continue to sing after my fade-out silences encouraged Lucia to continue singing when Cassie and I both performed fade-out silences. Lucia’s vocalization was most likely an approximate expected vocalization because I did not note that her sounds were precise.

On the same day, Cassie and I modeled fade-out silences with continued vocalizations during “Rolling,” and soon thereafter, elicited vocalizations from children:

I noticed Riley and Emma rolling toy trains along the floor, and I immediately transitioned into the rhythm chant “Rolling.” Lucia was seated in my lap. Cassie and I both chanted and rocked side-to-side to the macrobeats. Cassie rolled a toy car and I moved my hand, pretending to roll a toy car. I went silent on m. 4, but Cassie continued to chant, modeling a fade-out silence with a continued response [vocalization]. Both Cassie and Emma released their toy cars on m. 4. Emma retrieved a toy car for herself and one for Cassie. Cassie and I chanted “Rolling” again, this time with Cassie going silent at m. 4 and me modeling the continued response [vocalization]… Cassie and I began chanting again as Mira joined us on the right side of the carpet, holding a toy car and rolling it back and forth. Cassie and I both went silent on m. 3 this time. A child off the right side of the camera, probably Jacob, performed m. 3. Then, Mira approximated m. 4 as she swung her arm outward, holding a toy car. I smiled at Mira and chanted m. 4 accurately while wriggling to the microbeats. (“Rolling” video excerpt transcription, May 14, 2010)
After modeling a face-out silence with a continued vocalization twice, Cassie and I performed a cease-to-continue vocalization. Together, Jacob and Mira performed a chronological vocalization. Hearing Jacob’s accurate expected vocalization and Mira’s approximate expected vocalization allowed me to speculate that they may have been in the breaking the code stage of preparatory audition because they imitated musical sounds with some precision (Gordon, 2013).

During another music class, Cassie and I elicited a vocalization from Jacob by modeling an incompletion silence with a fill-in-the-blank vocalization:

While Cassie wrote in her notebook, I began singing “Ring the Bells” once more, and I moved the balled-up orange scarf as though I was getting ready to throw it, while looking to Jacob. Jacob had his green scarf over his head, but he could see me because the scarves were sheer. Jacob scrambled and stood from Cassie’s lap during mm. 6-7 and held both of his arms back as though he were holding a baseball bat. His motions indicated that he was ready and eager to play an imaginary game of baseball, which we had played during earlier music classes. I stopped singing after m. 7, leaving an incompletion silence, and simultaneously pitched my orange scarf toward Jacob. Jacob swung his imaginary bat at the scarf without making a sound. Then, he turned to look back at Cassie. Cassie had finished writing, and she held her arms back the same way that Jacob had held his arms. She swung her imaginary bat and sang “bum” (pitch = D = Resting Tone = Do). Jacob set himself up for my next throw, holding both his arms backward, and I quickly balled up the same orange scarf. I threw the scarf while singing only m.
7. Jacob swung at the scarf, and he clearly sang “bum” (pitch = D = Resting Tone = Do). (“Ring the Bells” video excerpt transcription, May 25, 2010)

Jacob’s fill-in-the-blank vocalization was also an accurate expected vocalization. Willing (2009) noted that incompletion silence may guide students from the introspection stage to the coordination stage of preparatory audiation by “providing supportive silence for children to help them learn that they can be thinking music, and [help] them recognize, perhaps unknowingly, the importance of music phrases” (p. 19).

The value of modeling instructional silences and vocalizations in this research is that modeling vocalizations may have elicited vocalizations from children. As Hornbach (2005) noted, “If a child is not responding vocally, it is difficult to ascertain his or her type or stage of musical development [preparatory audiation]. However, it is helpful to have this information so that the teacher can individualize instruction to the child’s personal musical learning needs” (p. 121). With more vocalizations from the children, Cassie and I were better able to determine the types and stages of the children’s preparatory audition and to tailor musical instruction.

**Emergent Theme Two: Using Interactive, Imaginative Play and Props Helped Teachers Elicit Children’s Vocalizations**

“Music making was predicated on interactions with other children and adults in their environment. In order to maximize learning, young children need direct interaction with the subject matter and social interactions with peers, parents, and teachers” (Hornbach, 2005, p. 34). In this study, adults used playful musical interactions to encourage the children to make music.
While coding the data, I noticed the pattern that children were engaged and vocalized frequently when teachers used interactive, imaginative play and props to perform music activities. In turn, when interactive, imaginative play and props were a part of music activities, teachers used that information to interpret children’s vocalizations. Eliciting and interpreting children’s vocalizations was essential to the research question: *When a music teacher implemented purposeful silences while performing a song and a rhythm chant, what techniques encouraged vocalizations made by 2-year-old children as observed by music teachers and classroom teachers?*

Teachers determined topics for interactive, imaginative play and uses for props from the children’s interests and the subjects of the songs and rhythm chants. Appealing to children’s interests was crucial for keeping these two-year-olds engaged in music activities. Brittni explained, “[Jacob] asks for certain songs that he likes. He likes to move a lot. If he’s just sitting there, doing the “Bum, bum, bum” (she sings), he’s just not paying attention, but if he’s doing the “My Pony Bill” (Valerio, et. al., 1998, p. 103) song, where he can move, or the trains because he’s interested in trains, or when he’s up swinging with his friends, [he shows interest]” (B. Girard, think-aloud interview, November 11, 2010). During one music class, Donna suspected that the children were less engaged because the music teachers omitted one of the children’s favorite imaginative play activities: “We didn’t have as [many] children participating this time…. Several wandered around the room, uninterested, maybe because we didn’t sing a sleep/wake up song” (D. Hester, written reflections, May 25, 2010).

All of the participant teachers noted Jacob’s enthusiasm for pretending to play baseball with the scarves. Donna said, “Jacob’s pretending to have a baseball bat to hit
the scarves. He’s so creative, and you picked right up on it, ‘The ball’s a scarf; I have to throw it to him.’ He’s loving it” (D. Hester, think-aloud interview, November 11, 2010). Donna thought that I showed sensitivity to Jacob’s cues. Brittni noted that this play scenario was useful for eliciting a vocalization: “I didn’t see any of the kids responding until you threw [the scarf] at Jacob, and he swung like he was hitting a ball. He went, “Bum!” (she hummed) when he swung his arms like a bat” (B. Girard, think-aloud interview, November 11, 2010). Cassie also noted Jacob’s vocalization during “Ring the Bells”:

- We left purposeful silences in specific parts that are the pitches “Sol Sol Do.”
- Jacob filled in the silence with a “bum” on Re. (He started to get us to throw the scarves to him and he would do a baseball swing, and sing the pitch when his “bat” hit the scarf.)
- On his second attempt, Jacob sang “bum” on Do (resting tone). (C. Polk, written reflections, May 25, 2010).

I wrote about the first time that this play scenario happened in my reflections:

Then, after awhile, I tried to sing “Ring the Bells” because it is my target song. Eventually, Jacob and I developed a pretend baseball game. At first, I was waving the scarf in curvy patterns as I sang bits of “Ring the Bells,” and he began to try to snatch or hit my scarf when I threw it at him. After awhile, he set his arms, ready to hit the scarf. Then, he finally held an imaginary baseball bat and I threw the ball (bunched up scarf) at him on the penultimate So-So (quarter notes) and left silence on the final measure Do (half note). He began to get impatient, as he wanted to hit the scarves sooner and sooner, so I only sang bits of “Ring the
Bells.” A few times he sang to fill-in-blank, but not usually the resting tone. Sometimes the Re/second scale degree [sic]. Dominic walked over to join in because he seemed to like the idea of baseball. He asked for me to throw it to him. I tried to be even and throw to both boys. Then, Emma wanted to join from where she was, about three or four feet away. She wanted me to use the pink scarf. She pretended to hit the ball too, but with less defined “baseball batter” stance than the boys. The scarves were serving as pivots according to play theory. The pivots allowed the children to imagine they were playing baseball. I think that the music enhanced their experience by creating anticipation. This situation is evidence, again, that children are more responsive when the music serves a purpose, not just “music for music’s sake.” (K. Reardon, written reflections, May 21, 2010)

Pretending to play baseball with the scarves helped me to engage three of the children during this particular music class. Although Jacob was more focused on playing “baseball” than on listening to the music, I was able to elicit some vocalizations from him. In the following music classes, I revisited this play scenario to engage the children and elicit vocalizations. After the final music class, I wrote

Today I finally got the “accurate” fill-in-the-blank for “Ring the Bells.”

Benjamin and one of the girls were away from the blue carpet, over playing on the big chair. Cassie and I were singing the song for Jacob and Dominic on the blue carpet and pretending to play baseball again. When I left the final resting tone silent, Benjamin sang it accurately on “bah” without even looking over at us. Cassie and I were both very excited! I performed the song again, leaving the
same silence, and Benjamin filled it in accurately again, still without noticing our excited facial expressions. (K. Reardon, written reflections, May 28, 2010)

Although Benjamin was not engaged in the play baseball game, I elicited an accurate expected vocalization from him by leaving an incompletion silence. Cassie noted Benjamin’s vocalization, as well as a vocalization from Elina, in her reflections about “Ring the Bells” from the same music class:

- We left purposeful silences in specific parts that are the pitches “Sol Sol Do”
- Elina filled in the silence on the syllable “ah, ah, ah” on the pitches So So Do.
- Benjamin filled in the last pitch on Do (C. Polk, written reflections, May 28, 2010).

Both Cassie and I noted that during the same music class, we played a pretend baseball game with scarves with Jacob, and he responded. Cassie wrote, “Jacob filled in the silence with a ‘bum’ on Re. He continued to do his baseball swing that he did the previous time we were in their class” (C. Polk, written reflections, May 28, 2010). I wrote,

In addition to Benjamin singing the resting tone in the silence at the end of “Ring the Bells,” Jacob filled in the same silence earlier with the second or Re on “bum.” He did it very naturally too, not stopping to look at Cassie or me, simply continuing his play with the scarves. (K. Reardon, written reflections, May 28, 2010)

Cassie and I incorporated Jacob’s enjoyment of pretending to be a baseball batter into our musical activities with “Ring the Bells,” and we were able to elicit vocalizations from several of the children.
With the criterion rhythm chant/rhythm patterns, “Rolling,” Cassie and I used toy cars, toy trucks, and toy trains to engage the children. A music teacher would hold a toy car to the ground, rolling it back and forth to the macrobeats, and release it forward while chanting the final measure of “Rolling.” Cassie noted, “Lots of responses [vocalizations] to the silences during this chant. The children like to roll the cars and trucks and fill in the sixteenth notes as the car rolls” (C. Polk, written reflections, May 14, 2010). I described the children’s engagement during the same music class:

I began the rhythm chant “Rolling” because Mira shouted “Beep, beep!” Cassie joined me in chanting, and we both got toy cars with moving wheels. We rolled the cars back and forth on each macrobeat. To create anticipation, we raised the pitch of our voices as we progressed through “Rolling.” Then, we were suddenly silent during m. 4, leaving an incompletion silence. Cassie and I both released our cars forward at that time, which is the same motion we used when we previously completed the entire chant. There was a pause of silence, and then, Mira approximated:

\[
\begin{array}{c}
\text{Bah bah bah bee Bah} \\
\text{Bah bah bah bee Bah}
\end{array}
\]

She did not say enough syllables nor did she keep a steady tempo. I responded to her by looking in her direction and chanting m. 4 with the given rhythm and in the same tempo I had used,

\[
\begin{array}{c}
\text{Bah bah bah bee Bah} \\
\text{Bah bah bah bee Bah}
\end{array}
\]

Jacob stood from Brittni’s lap and walked to Cassie. Twice, he chanted, just as Mira chanted.

Cassie responded by chanting m. 4 with the correct rhythm and tempo. As Jacob
sat in Cassie’s lap, he chanted, with the same rhythm and tempo he used before, but different syllables. I looked at Jacob. I chanted m. 4 with the correct tempo and rhythm, but instead of using only “bah,” I alternated “bah” and “bee.” I used to acknowledge Jacob’s response [vocalization] and to demonstrate the correct rhythm and tempo using his choice of syllables. As I chanted, I shimmied back and forth to the microbeats. Then, Jacob echoed me, chanting, with the correct rhythm but a slower tempo. (“Rolling” video excerpt transcription, May 14, 2010)

During this interlude, I introduced “Rolling” because Mira showed interest in cars when she shouted “Beep! Beep!” By rolling the cars to the macrobeats, Cassie and I appealed to the children’s interest in driving, and we were able to elicit rhythmic vocalizations from Mira and Jacob. Brittni also noted that we were able to elicit vocalizations from the children by playing with the toy cars:

The first thing I noticed was Emma. When you started rolling the cars, she went “Bah-bah-bah bah!” and rolled her car. Then, Jacob got in Cassie’s lap and kind of made a game out of it because every time, he’d lean back, he’d say it. Like fall backwards and say, “Bah-bah-bah-bah bah!” (B. Girard, think-aloud interview, November 11, 2010).

In this interlude, we used playful interactions with the toy cars to encourage vocalizations from Emma and Jacob.
In addition to toy cars, scarves served as a useful prop for engaging and for eliciting vocalizations from the children. As I described previously, when the children pretended to play baseball, they used the scarves as pivots for real baseballs. Early in my written reflections, I wrote about the usefulness of play and props, especially scarves:

None of the children responded to “Ring the Bells” this time, and I think there were several factors. On this song, Cassie and I usually hold scarves and move with flow, tracing curvy patterns in the air with the scarves. Riley had taken over half of the scarves and put them in a pile in the corner, so there were few scarves available. In addition, this is probably one of the least familiar songs to the children. Also, I think that my movements need to be more interesting or compelling for the children. They respond well to songs like “Jeremiah” and “Peekaboo” and to rhythm chants like “Rolling” because they are purposeful and strongly related to a specific toy and/or motion. Music has to serve a culture. (K. Reardon, written reflections, May 18, 2010)

I observed that using props and playful motions was useful for eliciting vocalizations.

Donna noted that the scarves were engaging for the children:

They really enjoy the scarves and use them to cover up, as a blanket, play peek-a-boo, blow them, throw them (Riley rolled his up into a snowball to have a “snowball fight” today) and find other creative ways to use them during music class. (D. Hester, written reflections, May 14, 2010)

Brittni observed that playing with the scarves prompted Jacob to revisit a particular song.

She said, “I heard [Jacob] initiate a song from the scarf, the song “Jeremiah, Blow the
“Fire” because you had brought the scarves before and done that song with them” (B. Girard, think-aloud interview, November 11, 2010).

In addition to helping the music teachers elicit vocalizations from the children, using props and imaginative play may have helped the teachers interpret children’s vocalizations. In our think-aloud interview, after watching a “Rolling” video excerpt, Donna interpreted one child’s vocalization as a musical sound (instead of a language sound) because he was playing with a particular toy. She explained that the children strongly associated certain props with specific musical activities.

Kathryn: Did you hear that? When he went, “Bah-bah!”

Donna: Yeah, that was interesting.

Kathryn: Was that, “Bah-bah”? What do you think that was?

Donna: It was kind of vague. It was almost like a “bah-bah”, but I don’t know.

<watching Rolling video>

Donna: It’s not really a “bah-bah.”

Kathryn: It’s funny because you could think, “Oh, was he trying to say something or trying to sing something or chant something?”

Donna: Yeah, it sounded more like he was trying to chant the sounds back to you because he rolled the car with it like you do when you do that.

Kathryn: Yeah, I guess – so the motions help you interpret what they’re saying, or singing, whatever it is they’re doing.

Donna: Yeah, that’s why I liked the car idea, for them to put that sound together, they knew what song you were going to sing. When you get the cars out, they already picked it up by that cue.
Kathryn: Ok. Yeah, so you think that the props help them anticipate the…

Donna: Yes.

Kathryn: Yeah. What else, can you think of –

Donna: But not the scarves, because we used them with different songs.

Kathryn: So, the scarves would make them think of all sorts of different things, probably, or - ?

Donna: Yes, but still, they often associate the scarves with the “Nih-Nah-Noh” song because sometimes we cover up with them.

Kathryn: Yeah, to go to sleep.

Donna: And sometimes with that baby song and cover the babies with them.

(D. Hester and K. Reardon, think-aloud interview, November 11, 2010)

Donna observed that the children associated toy cars strongly with the rhythm chant “Rolling,” but she implied that they did not associate the scarves as strongly with the song “Ring the Bells.” She thought that the scarves reminded the children of two other musical activities rather than “Ring the Bells.”

When Cassie and I used scarves as replacements for balls, we demonstrated symbolic substitution for the children. Bodrova and Leong (2007) asserted, “To ensure that toddlers build the capacity to make symbolic substitutions, adults must demonstrate and provide verbal support for them. One way to do this is by playing with children as the substitution is modeled” (p. 118). Although we avoided using language during music class, as recommended by Gordon (2013) and Valerio, et al. (1998), to encourage children to focus their attention on music and not to focus on language, Cassie and I provided verbal support for the children’s symbolic substitutions by associating certain
songs and rhythm chants with certain props and motions of play. As Donna recalled, the children also saw us use the scarves as replacements for blankets. By using the scarves in a variety of ways, Cassie and I helped to guide the children to their next stage of cognitive development: “Adults can help model how toys can be used in different ways and how everyday objects can become toys, and thus foster this cognitive skill [symbolic substitution] that will come to fruition in later years in symbolic play” (Bodrova & Leong, 2007, p. 119). Music acquisition has parallels to language acquisition (Gordon, 2012, 2013). If play can be used to guide children in language acquisition, perhaps play can be used to guide children in music acquisition. Bodrova & Leong (2007) explained:

By the end of their third year of life, children not only engage in pretend actions, but also start using language indicating the rudimentary role-playing in which they are engaged. Cheryl rocks her baby doll and says, “Cheryl-mommy.” The development of object substitution is the ability to use one object to stand for another, which signals the emergence of symbolic function, a competency that will continue to grow through preschool. Language used while involved in object-oriented activity prepares toddlers for the transition to the leading activity of preschool years – make-believe play. Both adult mediation and communicating and playing with other children, facilitate the development of language. (p. 110)

During these music classes, Cassie and I used object-oriented activity to guide children in music acquisition. By producing music vocalizations during instructional silences, the children gave meaning to the music that the teachers performed, and the children gave meaning to the object-oriented activity.
Overall, using props and imaginative play while singing or chanting seemed to increase children’s engagement with the musical activities and to encourage vocalizations. Use of props and imaginative play influenced both music teachers’ interpretations and classroom teachers’ interpretations of the children’s vocalizations.

**Componential Analysis: Comparison of Teachers’ Observations of Children’s Vocalizations**

Examining the observations of music teachers and classroom teachers was important to addressing the research question: *When a music teacher implemented purposeful silences while performing a song and a rhythm chant, what techniques encouraged vocalizations made by 2-year-old children as observed by music teachers and classroom teachers?* Similar to McNair (2010), I constructed a componential analysis (Appendix F) to compare the teachers’ observations of children’s vocalizations, particularly children’s vocalizations to instructional silences. Spradley (1980) explained, “A componential analysis includes the entire process of searching for contrasts, sorting them out, grouping some together as dimensions of contrast, and entering all this information into a paradigm. It also includes verifying this information through participant observation or interviews” (p. 133). I limited the componential analysis to the six video excerpts that I transcribed and that both Brittni and Donna viewed during their think-aloud interviews. In the comparison chart (Appendix F), I included one column for the date and song/rhythm chant, one column for observations, one column for myself (music teacher), one column for Brittni (classroom teacher), and one column for Donna (classroom teacher). In the observations column, I recorded children’s vocalizations to instructional silences that at least one teacher noticed. Then, I checked the think-aloud
interview transcriptions and video excerpt transcriptions to note whether the other participant teachers noticed the same vocalizations. I did not record teachers’ observations about language vocalizations, movements, or any other child behaviors.

All three teachers noticed musical vocalizations from the children. All three teachers noticed more vocalizations to the video excerpts of the rhythm chant than the video excerpts of the song. All three teachers noticed multiple imitative vocalizations and fill-in-the-blank vocalizations. All three teachers noticed that Jacob performed an unrelated, unexpected vocalization to “Ring the Bells” on May 25, 2010. Each teacher noticed at least one vocalization that neither of the other teachers noticed. When reviewing the third video excerpt of the rhythm chant “Rolling” from May 25, 2010, all three teachers noticed the same number of vocalizations from the same child. I noticed slightly more vocalizations than did Brittni, and Brittni noticed slightly more vocalizations than did Donna. Overall, there were more similarities than differences in the observations of one researcher/music teacher and two classroom teachers as shown in the componential analysis, which indicates that these three teachers showed much agreement in their observations. These classroom teachers, who did not specialize in music, were able to interpret children’s vocalizations to instructional silences similarly to the way one music teacher, who did specialize in music, interpreted children’s vocalizations to instructional silences. These similarities in observations support the conclusion that classroom teachers can be strong supporters to music teachers during early childhood music classes with formal and informal, structured guidance based on Music Play (Valerio, et al., 1998). If early childhood music teachers explain their teaching techniques to early childhood classroom teachers, classroom teachers can help
interpret children’s vocalizations. Classroom teachers may have much knowledge about children’s general development and use that information to make teaching choices to guide the children’s development; the more knowledge about children’s musical development that early childhood music teachers convey to classroom teachers, the better the classroom teachers will be able to support children’s musical development.
CHAPTER 5

DISCUSSION

Overview of the Study

**Purpose.** With the intent of improving early childhood music development understanding, the purpose of this research was to examine young children’s music vocalizations.

**Guiding research question.** When a music teacher implemented purposeful silences while performing a song and a rhythm chant, what techniques encouraged vocalizations made by 2-year-old children as observed by music teachers and classroom teachers?

**Method.** I implemented a qualitative design utilizing participant observation techniques to investigate the research purpose and question of this study (Spradley, 1980). Four teachers served as a panel of experts (Patton, 2002), including Cassie, a graduate music education student and music teacher; Donna, a classroom teacher; Brittni, a classroom teacher; and myself, a graduate music education student and music teacher. I taught 20-minute music classes based on *Music Play* (Valerio, et al., 1998) to a class of 12 two-year-old children at the Children’s Center at the University of South Carolina during the 2009-2010 school year. Cassie began assisting me as a music teacher during the month of April. For the study, I taught and video recorded six music classes, two-per-week for three weeks, during May 2010. Donna and Brittni accompanied the children, Cassie, and I during these music classes. Cassie and I implemented purposeful silences,
particularly instructional silences (Willing, 2009), when performing the criterion song “Ring the Bells” and its corresponding tonal patterns and the criterion rhythm chant “Rolling” and its corresponding rhythm patterns. I chose to use “Ring the Bells” and “Rolling” for the criterion song and criterion rhythm chant because I had noticed a high number of children’s vocalizations during these two selections throughout the first semester and the early part of the second semester. Cassie, Donna, and I wrote reflections following each music class. I used FlipShare to view the video recordings of the music classes and to create separate video files, or video excerpts, for each interlude in which we sang “Ring the Bells” or chanted “Rolling.” Then, I reviewed the video excerpts and used intensity sampling to select only the vocalization-rich video excerpts to transcribe (Patton, 2002). After using Microsoft Word and QuickTime Player to transcribe all the vocalization-rich video excerpts, I selected three video excerpts of the criterion song/tonal patterns and three video excerpts of the criterion rhythm chant/rhythm patterns to view with Donna and Brittni during separate think-aloud interviews (Ericsson & Simon, 1993). I video recorded each of the think-aloud interviews and then, used Microsoft Word and QuickTime Player to transcribe the interviews. I conducted member checks (Creswell, 2003) with Donna and Brittni to verify the accuracy of the transcribed think-aloud interviews.

**Findings.** As recommended by Spradley (1980), I constructed cultural domains, taxonomies, and a componential analysis to analyze the data and determine findings. With this qualitative study I do not purport that these findings be generalized to the population at large (Patton, 2002). For this study I adapted two cultural domain tables and
two taxonomies from *Young Children’s Responses to Purposeful Silences During Music Activities* (Willing, 2009).

**Cultural domains, taxonomies, and coding.** In the first cultural domain, *Willing’s Instructional Silences and Responses*, I listed and described four types of instructional silences and four vocalizations to instructional silences. In the second cultural domain, *Willing’s Degrees of Children’s Responses*, I listed and described children’s vocalizations according to expectancy, accuracy, and relatedness. I used the cultural domains and corresponding taxonomies to create a data analysis codebook with four codes for silences and eight codes for vocalizations.

Next, I coded the written reflections, the transcribed music class video excerpts, and the transcribed think-aloud interviews, to describe and classify children’s vocalizations and teachers’ observations. I printed the data, using different colored paper for each data source, and coded the data by hand, writing codes and notes in the margins of the printed copies.

**Emergent themes.** Two themes emerged as I coded the data:

1. Modeling instructional silences and vocalizations may have encouraged vocalizations from children.

2. Using interactive, imaginative play and props helped teachers elicit children’s vocalizations.

While coding instructional silences and vocalizations, I frequently noted *modeling* in the margins of the data. Cassie and I modeled musical interactions for the children. Often, I performed an instructional silence and Cassie performed the corresponding
vocalization. The reverse happened as well. Following our models, children performed vocalizations, often in the same video excerpt.

Cassie and I were able to elicit vocalizations from the children when they were engaged, and the children showed interest when we used playful, imaginative interactions and toys as props. During the criterion song “Ring the Bells” and its corresponding tonal patterns, one child, Jacob, developed a pretend game of baseball with the music teachers and other children. Using scarves to serve as baseballs, the children pretended to hold bats and swing at the scarves. Cassie and I left incompletion silences just as we threw the scarves, which elicited tonal and melodic vocalizations from several of the children at various times.

During the criterion rhythm chant “Rolling” and its corresponding rhythm patterns, Cassie and I used toy cars, trucks, and trains to engage the children and create musical anticipation. We swung the toy cars back and forth to the macrobeats as we chanted “Rolling,” raising the pitches of our voices, and then, we left incompletion silences as we released the toy cars. We were able to elicit rhythmic vocalizations from the children many times with this playful activity.

**Componential analysis.** Similar to McNair (2010), I conducted a componential analysis (Spradley, 1980) to compare the participant teachers’ observations. I used six video excerpts that I transcribed and that both Brittni and Donna viewed during their think-aloud interviews. In a comparison chart, I recorded the children’s vocalizations to instructional silences that at least one participant teacher noticed, and then, I checked whether the other teachers noticed the same vocalization. Brittni, Donna, and I showed more similarities than differences in which vocalizations to instructional silences we
noticed. With some guidance from early childhood music teachers, early childhood classroom teachers may strongly support children’s musical development.

**Implications for Future Research**

Although the findings from this qualitative study are not generalizable beyond the naturalistic setting of the study, early childhood music teachers may investigate the methods and findings to benefit their practices in their own educational settings. Though this study was limited because I investigated two classroom teachers’ and two music teachers’ observations regarding purposeful silences and children’s vocalizations with one group of 12 two-year-old children, the findings support the use of instructional silences, especially in conjunction with modeling and props (Hornbach, 2005; McNair, 2010; Willing, 2009). Such techniques allowed the teacher participants in this study to elicit musical vocalizations from the children, to interpret musical vocalizations, and to increase their understanding of early childhood music development. Interpreting the precision and relatedness of children’s musical vocalizations to the current music activities enabled teachers to estimate children’s progress in the types and stages of preparatory audiation (Gordon, 2013).

Future research regarding instructional silences and vocalizations will increase the body of knowledge about eliciting musical vocalizations from young children. Replicating this study with another group of children, classroom teachers and music teachers would clarify understandings about instructional silences and vocalizations. Interviewing and reviewing video excerpts with music teachers who did not act as participant observers during early childhood music classes would provide a different perspective. Interviewing and reviewing video excerpts with parents who participate in
early childhood music classes with their children would also provide a different perspective. Conducting a similar qualitative study with a longer time frame for collecting video recordings of music classes would likely yield a wider variety of vocalizations from children and help researchers relate children’s vocalizations to instructional silences to the types and stages of preparatory audiation (Gordon, 2013). If I were able to implement this study again, I would specifically review each of the types of instructional silences and vocalizations and the degrees of vocalizations with teachers before they wrote reflections. I would also create a list of prompts to use consistently in each think-aloud interview.

**Implications for Early Childhood Music Teachers**

A young child’s vocalizations are crucial to assessing her progress in preparatory audiation, and instructional silences are a useful tool for eliciting vocalizations. Together, two or more adults can model instructional silences and vocalizations to encourage children to respond. Using interactive, imaginative play and props can engage children and increase their vocalizations to instructional silences. Communicating information about instructional silences to other music teachers, to classroom teachers, and to parents may enable them to assist a music teacher in modeling instructional silences and vocalizations and interpreting children’s vocalizations. Classroom teachers may prove to be valuable partners in supporting children’s musical development. Reese (2011) explained,

Adults have the opportunity to scaffold development during adult-child interactions. As with adult-child communicative interactions, adult-child music interactions are likely to be positively influenced by adults’ abilities to identify
and interpret young children’s music behaviors. Specifically, the more adults identify young children’s behaviors as music, the more opportunities adults have to interact musically with young children (p 115).

The classroom teachers in this study provided various perspectives about children’s vocalizations and reflected on their participation in the children’s music activities. Brittni asserted,

I think something that helps a lot is when the teachers are on the carpet, too. If the teachers aren’t there, then the kids aren’t [there]… I feel like, when we were there, on the carpet, sitting there, it was kind of better than us trying to run around and calm a child. (B. Girard, think-aloud interview, November 11, 2010)

Reviewing video excerpts of the music classes in this study may have influenced Brittni’s perspective about her role in supporting children’s music development. Donna reflected about instructional silences,

We’ve only [used instructional silences] once, myself and the teacher that’s in there now, but I do think it’s good, and it also lets us know how well they [the children] are paying attention because sometimes they’ll just be doing their own thing and then, they’ll complete a sound, and you think they’re not even listening… You see how some of them are just moving around, doing their own thing or pushing a car or whatever, but then, when they hear the silence, they’ll chime in. That’s interesting to watch.” (D. Hester, think-aloud interview, November 11, 2010)

Classroom teachers may assist music teachers in encouraging and interpreting music vocalizations from children. Early childhood music teachers should continue to build
alliances with classroom teachers as they interpret and encourage young children’s vocalizations with regard to musical development. Together they should use interactive music making techniques, such as instructional silences, vocal modeling, imaginative play, and props to support children’s musical development.
REFERENCES


Presently, I am the music teacher at the Children’s Center at USC for class 2B, and truly enjoy working with your child. I am concurrently a graduate student working on my Masters in Music Education at the University of SC and conducting research for my thesis, *Teachers’ Observations of 2-Year-Old Children’s Musical Vocalizations Elicited by Purposeful Silence Techniques*. With the intent of improving early childhood music development understanding, the purpose of this research is to examine young children’s musical vocalizations. My specific research questions are: when a music teacher implements purposeful silences while performing a song and a rhythm chant 1) what is the nature of the vocalizations made by 2-year-old children, and 2) what are the common understandings shared by music teachers and a classroom teacher with regard to the first research question?

Though regular music instruction at the Children’s Center will end in April, I would like to continue to offer music to your child’s class through May 28, 2010. To collect data, I will video record our classes on Tuesdays and Fridays 9:40-10:00 am on May 11, 14, 18, 21, 25, 28. After each class, Miss Donna, Miss Cassie (my music assistant), and I will write reflections and watch the video recordings. All data will be coded and no names of children will be revealed. Videotapes will not be published, but may be used for educational purposes during my own research presentations.

Your child’s participation in this study is completely voluntary. Data will be coded to ensure confidentiality. You may discontinue your child’s participation at any time without prejudice.

The University of South Carolina is eager to ensure that all research participants are treated in a fair and respectful manner. If you have any concerns or questions about your treatment as a subject in this project, contact Mr. Tommy Coggins, USC Office of Research (803) 777-4456.

Please complete and return the attached form to Mrs. Sherry King, by May 3, 2010.
Sincerely,

Kathryn Ward
MME Student
kathrynroyalsward@hotmail.com

Wendy H. Valerio, Ph.D.
Director, Children’s Music Development Ctr.
Associate Professor of Music
Wvalerio@mozart.sc.edu

Please return the attached form to CC Director, Mrs. Sherry King, by May 3, 2010

Informed Consent Agreement – Parent for Child

_____ I agree for my child to be videotaped for the research study, *Teachers’ Observations of 2-Year-Old Children’s Musical Vocalizations Elicited by Purposeful Silence Techniques*. I have read, understand, and agree to comply with the information outlined in the accompanying letter of informed consent.

_____ I do not agree for my child to be videotaped for the research study, *Teachers’ Observations of 2-Year-Old Children’s Musical Vocalizations Elicited by Purposeful Silence Techniques*.

________________________
Today’s Date

________________________
Parent’s Printed Name

________________________
Home Telephone

________________________
Signature of Parent

________________________
Work Telephone

________________________
P.O. Box

________________________
Street

________________________
City

________________________
State

________________________
Zip Code

________________________
Child’s Name

________________________
Child’s Birthdate
Dear Teacher:

April 19, 2010

I am concurrently a graduate student working on my Masters in Music Education at the University of SC and conducting research for my thesis, *Teachers’ Observations of 2-Year-Old Children’s Musical Vocalizations Elicited by Purposeful Silence Techniques*. With the intent of improving early childhood music development understanding, the purpose of this research is to examine young children’s music vocalizations. My specific research questions are: when a music teacher implements purposeful silences while performing a song and a rhythm chant 1) what is the nature of the vocalizations made by 2-year-old children, and 2) what are the common understandings shared by music teachers and a classroom teacher with regard to the first research question?

Though regular music instruction at the Children’s Center will end in April, I would like to continue to offer music to the 2B class, in which you are a teacher or music teacher, through May 28, 2010. To collect data, I will video record our classes on Tuesdays and Fridays 9:40-10:00 am on May 11, 14, 18, 21, 25, 28. After each class, I will write reflections and watch the video recordings, and I invite you to do the same. All data will be coded and no names of children will be revealed. Videotapes will not be published, but may be used for educational purposes during my own research presentations.

Your participation in this study is completely voluntary. Data will be coded to ensure confidentiality. You may discontinue your participation at any time without prejudice.

The University of South Carolina is eager to ensure that all research participants are treated in a fair and respectful manner. If you have any concerns or questions about your treatment as a subject in this project, contact Mr. Tommy Coggins, USC Office of Research (803) 777-4456.

Please complete and return the attached form to Mrs. Sherry King, by May 3, 2010.
Informed Consent Agreement – Teacher or Music Teacher

_____ I agree to make written reflections, to be interviewed, and to be videotaped for the research study, *Teachers’ Observations of 2-Year-Old Children’s Musical Vocalizations Elicited by Purposeful Silence Techniques*. I have read, understand, and agree to comply with the information outlined in the accompanying letter of informed consent.

_____ I do not agree to make written reflections, to be interviewed, and to be videotaped for the research study, *Teachers’ Observations of 2-Year-Old Children’s Musical Vocalizations Elicited by Purposeful Silence Techniques*.

<table>
<thead>
<tr>
<th>Today's Date</th>
<th>Teacher’s or Music Teacher’s Printed Name</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Home Telephone</td>
</tr>
<tr>
<td>Signature of Teacher or Music Teacher</td>
<td>Work Telephone</td>
</tr>
<tr>
<td>P.O. Box</td>
<td>Street</td>
</tr>
<tr>
<td>City</td>
<td>State</td>
</tr>
</tbody>
</table>

Please return the attached form to CC Director, Mrs. Sherry King, by May 3, 2010.
Appendix C – Criterion Song and Corresponding Tonal Patterns

Ring the Bells

Moderate

Edwin E. Gordon

(Valerio et al. 1998, p. 50)

Acculturation Patterns / Tonal

Imitation and Assimilation Patterns / Tonal

(Valerio et al. 1998, p. 51)
APPENDIX D – CRITERION RHYTHM CHANT AND CORRESPONDING RHYTHM PATTERNS

Rolling

Moderate

Wendy H. Valerio

(Valerio et al. 1998, p. 86)

ACCULTURATION PATTERNS / RHYTHM

IMITATION AND ASSIMILATION PATTERNS / RHYTHM

(Valerio et al. 1998, p. 87)
APPENDIX E – TEACHER REFLECTION PROMPT

● Please write one reflection after each music class. The sooner you write, the fresher the ideas and memories will be. Write anything that you thought was important or significant. Your reflections are like a journal, so please do not stress about having perfect grammar or being very organized. Write things as you remember. Thank you very much for sharing your impressions!

● I included my research proposal in case you would like to know more about the purposeful silence techniques that we are using.

● I will collect the notebook sometime after the final class on May 28.

● Please call or email me if you have any questions (843) 340-9429

  kathrynroyalsward@hotmail.com
APPENDIX F – COMPONENTIAL ANALYSIS COMPARING TEACHERS’ OBSERVATIONS OF 2-YEAR-OLD CHILDREN’S MUSICAL VOCALIZATIONS ELICITED BY PURPOSEFUL SILENCE TECHNIQUES

<table>
<thead>
<tr>
<th>Song/Chant Excerpt Date</th>
<th>Research Participants’ Observations Regarding Musical Vocalizations</th>
<th>Music Teacher, Kathryn</th>
<th>Classroom Teacher, Brittni</th>
<th>Classroom Teacher, Donna</th>
</tr>
</thead>
<tbody>
<tr>
<td>RtB 5/14</td>
<td>Lucia performed a continued vocalization</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>RtB 5/14</td>
<td>Lucia performed a fill-in-the-blank vocalization</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RtB 5/21</td>
<td>Jacob performed a fill-in-the-blank vocalization</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>RtB 5/25</td>
<td>Jacob performed a fill-in-the-blank vocalization</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>RtB 5/25</td>
<td>A child off-camera performed an imitative vocalization</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RtB 5/25</td>
<td>Jacob performed an unrelated, unexpected vocalization</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>RtB 5/25</td>
<td>A child off-camera performed a fill-in-the-blank vocalization</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Roll 5/11</td>
<td>Jacob performed an imitative vocalization</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Roll 5/11</td>
<td>Emma performed an imitative vocalization</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Roll 5/11</td>
<td>Jacob performed a fill-in-the-blank vocalization</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Roll 5/11</td>
<td>Jacob performed an imitative vocalization</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Roll 5/11</td>
<td>Jacob performed a fill-in-the-blank vocalization</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Roll 5/11</td>
<td>Lucia performed an imitative vocalization</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Roll 5/11</td>
<td>Jacob performed an imitative vocalization</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Roll 5/11</td>
<td>Mira performed an imitative vocalization</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Roll 5/14</td>
<td>Mira performed a fill-in-the-blank vocalization</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Roll 5/14</td>
<td>Jacob performed an imitative vocalization</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Roll 5/14</td>
<td>Riley performed a fill-in-the-blank vocalization</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Roll 5/14</td>
<td>Jacob performed an imitative vocalization</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Roll 5/14</td>
<td>Jacob performed a fill-in-the-blank vocalization</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Roll 5/14</td>
<td>Mira performed an imitative vocalization</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Roll 5/25</td>
<td>Riley performed a fill-in-the-blank vocalization</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Roll 5/25</td>
<td>Riley performed an imitative vocalization</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Roll 5/25</td>
<td>Riley performed an imitative vocalization</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

2 RtB = Criterion Song/Tonal Patterns, “Ring the Bells” (Valerio et al. 1998, pp. 50-51)

3 Roll = Criterion Rhythm Chant/Rhythm Patterns, “Rolling” (Valerio et al. 1998, pp. 86-87)

90